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IVY DAY ADDRESS*

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Members of the Graduating Class in Medicine: I esteem it an honor to have been invited to address you on this occasion, one which, because of its peculiar nature, can come to you but once in a life-time, and it is indeed a privilege to me to congratulate you all upon the completion of your journey over the "long-long trail" leading to the degree of Doctor of Medicine.

You are about to enter the ranks of a profession which will demand of you all that you possess of courage and fortitude; of faith and optimism; of loyalty and devotion; a profession in which defeats are more numerous than victories; tears more frequent than smiles; and labor, both mental and physical, the constant companion of its votaries. To you will be entrusted the lives of your patients and upon your judgment and ability will often depend the very issues of life or death. It is well then, that on this day which marks the beginning of your careers in medicine, you consider carefully some of the things which, if carried with you into your practice, will make it a success.

It has been well said that it is not so much what one accomplishes in life that counts but the spirit in which the work was done, and it is true that unless we carry with us into the practice of medicine the sincere desire to alleviate suffering our labors are in vain and success will not crown our efforts. This desire, which is the proud boast of our profession and the activating force in every true physician's life, can reach fruition only through the application of knowledge guided by experience, and this is only possible as the result of continuous study and observation.

As you begin your careers in medicine take with you into its practice the spirit of research, and by research is meant not alone the pursuit of knowledge in laboratories, among test tubes and guinea-pigs, but all inquiries and studies into the phenomena of disease as presented to you in your daily contacts with your patients. To many, the term "research" indicates only laboratory studies, for they forget that clinical research at the patient's bed-side is just as truly "research" and as important, as the most learned and abstruse problem pursued in the laboratory. If one reads the history of medicine with care it will be noted that clinicians, during their daily rounds in the wards of hospitals and the homes of their patients, have, through careful observation, inspired by the spirit of research, discovered disease entities which would have remained unknown had they not been laboriously elucidated at the bed-side of the individuals suffering from them. Richard Bright, who contributed to medicine his classical accounts of renal disease, never worked in a laboratory but, with his keen, analytical mind, he studied every patient and made the most minute and careful notes regarding their symptoms and the physical signs which they presented. Wilks, one of his colleagues, wrote of him "he could *see* and we are struck with astonishment at his powers of observation, as he photographed pictures of disease for the study of posterity". The immortal Jenner needed no laboratory in which to discover the virtues of small pox vaccination but aided by his powers of observation and deduction he brought to a triumphant conclusion one of the most import-

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ant of research problems and contributed to mankind one of the most beneficient discoveries in the realm of medicine. William Beaumont, seizing the opportunity afforded him by a patient who developed a gastric fistula after a gun-shot wound of the abdomen, studied gastric digestion and the movements of the stomach through a period of eight years, and was thus able to contribute to medicine a classic upon the subject of digestion. Beaumont was an obscure military surgeon practicing in the little posts of the Northwest but he was the first to accurately describe the movements of the stomach during digestion, the secretion of the gastric juice, the effect of this juice upon different food materials, and the phenomena of inflammation of this organ. Alphonse Laveran, inspired by the desire to investigate the malarial fevers which were prevalent at his post, examined the blood of his patients with the result that to him belongs the glory of the discovery of the plasmodia of malaria. And so I might go on indefinitely, recalling to your minds the work of illustrious medical men, who, filled with the spirit of research, have through the ages contributed to mankind the vital facts and data upon which is based our medicine of today.

It is most unfortunate that with the rise of the clinical laboratory the problems of medicine have been largely relegated to these institutions and the minute clinical study of the patient at the bed-side has been largely neglected. To this is very largely due the fact that certain infections and organic diseases are so frequently unrecognized unless accidentally discovered through a routine examination in the laboratory. During the past two decades several disease entities once thought to be rare or practically non-existent, save in very localized areas in our country, are now known to have a wide distribution, among which may be mentioned undulant fever, typhus fever, Rocky Mountain spotted fever and relapsing fever, and no small part of our new knowledge regarding these infections has been acquired through clinical studies made at the bedside of the patient. It is not too much to believe that other disease entities yet unknown are awaiting the application of the spirit of research in the practice of medicine for their discovery.

Not only should the spirit of research inspire you to inquire into the reasons for what you observe but it is a part of this spirit to record for others the results of your experiences. Research is sterile unless it is recorded and it is your duty, as well as privilege, to publish observations that may be of value to your brother practitioners. Each patient should be regarded as a research problem which demands of you all that you possess of knowledge and experience, remembering that the careful investigation of apparently the most simple case may result in the discovery of some fact that may benefit mankind. It is also well to frequently repeat that wise saying of the first great physician, Hippocrates, "Experience is fallacious and judgment difficult", for in so doing we will remember to be humble and avoid the pride of knowledge that we may think that we possess.

If you carry into your practice the spirit of research it will produce in you a longing to constantly add to your knowledge by the reading of medical books and journals. Only by so doing can a physician keep well informed as to the progress of medicine and such reading should not be entirely confined to the subjects in which one may be particularly interested but should cover a goodly portion of the entire subject of medicine.

If you will carry into your practice this spirit of research, which I have broadly sketched, you will find that your work will cease to be work because it will be so full of interest and that each day will contain a new adventure in medicine for you. Its application will enable you to profit from your experiences and to constantly add to your knowledge and ability, while, just around the corner, there may await you a discovery that will benefit humanity and add your name to the list of those who have made additions to the science and art of medicine.

However valuable the spirit of research may prove to you in your practice it must be tempered by the spirit of humanity. Perhaps never before in the history of medicine is the spirit of humanity so needed in its practice as at the present time. The development of our great clinics, of the group method of the practice of medicine, and of the various forms of contract practice has resulted in neglect of the human side of our profession and the old personal re-

lationship between the physician and his patient is rapidly being lost. This age is well called "the machine age" and the mechanization of the medical profession is proceeding along with that of all the other activities of life. The development of diagnostic instruments of precision and the reliance of the physician upon the results of laboratory tests and methods, has led to much neglect of clinical observation and the treatment of the patient as a machine rather than as a human being. One of the most frequent criticisms of our profession now voiced by patients is the lack of understanding and sympathy which used to be the very essence of the successful practice of our art. The passing of the patient from one specialist to another, so popular now in our group practice, while it may lead to greater precision in diagnosis, does result in the patient being regarded simply as a machine and the old cordial relationship between the physician and patient is lost. It has been said that within a comparatively short time the practice of medicine will be entirely carried on in hospitals and clinics and that the general practitioner will have disappeared. If this ever does occur it will be the death blow of the *art* of medicine even though it may contribute to its *science,* but it is my firm belief that the family physician is here to stay, and that no system of clinic, hospital or group practice will ever replace, either in the hearts or lives of our people, the general practitioner of medicine.

However, this does not mean that the general practitioner, the "family doctor", should not carry into his practice the spirit of research but with it he should carry the divine sympathy with suffering, the understanding heart, and the capacity for lightening the burdens of others, either mental or physical, which must ever characterize the true physician. In our pride in what has been accomplished upon the scientific side of our profession let us not forget that man is composed of both body and spirit and that while science may minister to the diseased body it knows but little of spiritual needs, and that here is just where the practice of medicine becomes an *art* and not a *science.* The physician who neglects to carefully study and influence the mental outlook of his patient is simply giving aid and comfort to the various cults, especially Christian Science, whose votaries do recognize the profound influence of the mind upon the body and who thrive upon the mistakes in this direction which are made by practicing physicians. Other things being equal, the physician who is a good psychologist will be more successful in his practice than one who is not, and we are all acquainted with members of our profession who, without being outstanding scientific practitioners, have been wonderfully successful because of their understanding of human nature and the application of this knowledge in their practice.

Contained within the handsome little volume you have had prepared to commemorate your graduation and the 100th Anniversary of the Tulane School of Medicine, is the beautiful tribute to the physician penned by that Prince of literary artists, Robert Louis Stevenson. This tribute could only have been written by one who had come into close contact with physicians, as we know that he did for long periods of time, and it should be a matter of solemn pride to us that those physicians with whom he did come into contact were of such character as to have called forth this tribute of appreciation. Only physicians who practiced their art in the spirit of humanity could have so impressed a man as cosmopolitan as Stevenson, and it is indeed doubtful if he would have said as much of men who had forgotten the human side of medicine in their pursuit of its scientific aspects.

I am informed, by those who are public speakers, that it is no longer fashionable to quote from Shakespeare, but in conclusion I am going to take the risk of being considered "an old fogy" and repeat the council that Polonius gave his son Laertes, for it is especially applicable to the young physician who is just beginning his career in medicine. You will recall, if you know your Hamlet, that Laertes was just about to sail for France when his father, Polonius, thus addressed him:

> "There,—my blessing with thee; and these few precepts in thy memory.
>
> See thou character. Give thy thoughts no tongue,
>
> Nor any unproportioned thought his act. Be thou familiar, but by no means vulgar;
>
> The friends thou hast, and their adoption tried,

Grapple them to thy soul with hoops of steel;
But do not dull thy palm with entertainment
Of each new-hatched, unfledged companion.—
Give every man thine ear, but few thy voice;
Take each man's censure but reserve thy judgment.
Costly thy habit as thy purse can buy,
But not expressed in fancy; rich, not gaudy;
For the apparel oft proclaims the man.—
Neither a borrower or a lender be;
For loan oft loses both itself and friend,
And borrowing dulls the edge of husbandry.
This above all,—to thine own self be true;
And it must follow, as the night the day,
Thou canst not then be false to any man".

CONGENITAL SYPHILIS*

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Torella[1] in 1498 first mentioned syphilis in the nursing infant. This is again mentioned by Cataneous in 1505 and in 1508 Vella discussed it as contamination from the nurse. It is to Paracelsus in 1529, however, that the first mention of syphilis by inheritance must be attributed although only mentioned in a vague manner.

The nineteenth century was marked by advance in our knowledge of the clinical manifestation, the pathology, and the modes of transmission of the disease. Diday and Fournier in France, Hutchinson and Colles in England, Virchow and Hochsinger of Austria stand out prominently among the hundreds who contributed in a greater or less degree to our knowledge of hereditary syphilis during this period.

But it was the opening decade of the twentieth century that added more to our knowledge of syphilis, it may be said without exaggeration, than the three previous centuries. In 1903 Metchnikoff and Roux were able to transmit the disease to chimpanzees, thus opening the opportunity for experimental studies. In 1904 Wassermann described the application of the complement fixation test to syphilis, the one most valuable means of diagnosis. In 1905 Schaudinn and Hoffman discovered the causative organism, *Treponema pallidum,* and in 1910 Ehrlich announced "606" to the medical world, opening the therapeutic field anew. Thus in the space of one decade strides of enormous importance were made in etiology, pathology, diagnosis and treatment which have enabled us to go over the field of hereditary syphilis with a new light.

For convenience some have divided hereditary syphilis into four groups, namely: (1) Fetal syphilis; (2) infantile syphilis; (3) late or tardy syphilis; (4) latent syphilis. In a gross way certain symptoms or groups of lesions attach to each of these periods but the lines are not absolutely defined. Lesions found in the stillborn or the infant at birth, developing during intra-uterine life, are designated "fetal." Lesions appearing after birth and during infancy are spoken of as "infantile." In many children a new group of lesions appear during later childhood and these are commonly known as "late" or "tardy." After birth, either before the appearance of infantile lesions or between a group of early and a group of late lesions appearing perhaps after an interval of months or even years, there may be a period in which manifest signs of an infection are lacking. During this time the infection is designated as "latent."

Of course the division into these groups is by no means absolute. Not infrequently lesions of the so-called "late" group appear during infancy and we know that certain so called "specific lesions" of late syphilis, as Hutchinson teeth, which belong to the second dentition and hence are not seen in infancy, are due to interference with growth and development during infancy and are not the result of the syphilitic process becoming active during later childhood. In a certain number of cases, so far as can be ascertained, the first signs of the luetic infection develop in later childhood. It may be that in some of these cases early signs were very slight and overlooked.

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Fig. 1. (a) Case I. before treatment (April 4, 1932).

Only the first two groups will be considered and referred to in this paper.

Much controversy in the past has taken place in regard to the manner of transmission of congenital syphilis. The earliest syphilologist held that it could be transmitted from the father to infant in utero without the mother becoming infected at the same time. This view doubtless arose from the fact that the mothers of syphilitic children only rarely present signs of syphilis and in the majority of cases give no history of the disease. This is the so-called germinative mode of transmission and does not seem possible since we know the *T. pallidum* is from six to fifteen microns in length while the head of the spermatozoon is only from three to six microns in length.

The other possible mode of transmission, and that which most recent authorities agree is the usual one, is the placental. From this mode of infection of the fetus, it would follow that the mother of a syphilitic child must herself always be syphilitic. Even though a very large percentage of the mothers of syphilitic children give no history or show no signs of syphilis, yet most of them have a positive Wassermann reaction and must be regarded as having latent syphilis.

SYMPTOMS

In congenital syphilis the infection is intrauterine and hence by the blood stream through the placenta, thus no chancre as in acquired, this being a fundamental difference. Since infection takes place through the blood stream we would expect the most marked and constant changes in those tissues most intimately a part of the fetal circulation with an abundant blood supply, and this is exactly what is found.

Rhinitis or "snuffles" is one of the most constant of the features presented by the infant wtih congenital syphilis, and is due to swelling and excoriation of the nasal mucous membrane with a certain amount of viscid discharge.

Cutaneous eruptions, diffuse or localized as in acquired type, form a rather constant finding. The diffuse eruption may be in the form of the maculo-papular syphilide or the papulo-pustular syphilide. Localized lesions in the form of longitudinal radiating fissures or rhagades about the mouth and anus and followed by marked scarring in later life may serve as valuable stigmata of the disease. Condylomata are not uncommon about the anus and external genitalia and are in reality maculo-papular lesions which have undergone ulceration following maceration of the surface. Another type is a bullous eruption which may be wide spread or more or less limited to the soles of the feet or palms of the hands. It usually signifies a severe infection and is present at birth or shortly

Fig. 1. (b) Case I. after treatment (May 5, 1932).

afterward and the patient usually succumbs before treatment is of any avail.

While at birth usually well nourished, infants with syphilis soon show malnutrition due to infection. The spleen and liver are rather constantly enlarged as these organs enter into the fetal circulation as stated above. Enlargement of the lymph glands may or may not occur. When present it is never to the extent seen in acquired syphilis. Anemia in untreated cases is pronounced, especially if malnutrition is present. There is nothing characteristic about the type.

Involvement of the eyes is usually not present and if it is, it is of the acute type, as iritis. Changes in the bones in the form of epiphysitis, osteitis, osteochondritis, as shown by the roentgenogram, may be demonstrated before any of the above clinical evidences of congenital syphilis. Tenderness and swelling may be found about several of the epiphyses of the long bones and in some cases one or more of the limbs may be apparently paralyzed, the arm hanging motionless and flacid, whereas the legs when affected are often in a condition of tonic contraction, a condition known as Parrot's pseudo-paralysis. This condition has to be differentiated from scurvy, infantile paralysis, Erb's paralysis and acute epiphysitis. Scurvy is very rare before the age of six months, whereas the paralysis of syphilis generally occurs before the second or third month after birth and is very rare after six months. Pain and tenderness are usually more pronounced in scurvy. The presence or absence of other signs of the complaint, the appearance by roentgen-ray examination and the Wassermann reaction of child and mother will usually establish the diagnosis. Infantile paralysis is also rare at the early age when pseudo-paralysis is commonest. Its onset is more sudden, and is followed by rapid degeneration of the affected muscles. Erb's paralysis is present from birth. Acute epiphysitis has marked constitutional symptoms with fever, intense pain and tenderness.

Less frequent lesions to be mentioned are laryngitis, orchitis, nephritis, hemorrhage, paronychia, alopecia, jaundice, and ascites.

A negative Wassermann test of the infant's blood at birth does not exclude syphilis nor does a positive Wasermann prove congenital syphilis even though the mother's Wassermann may be negative or positive. Roberts[2] reports 29 cases of infants born with positive Wassermann reactions of mothers with positive Wassermann reactions who did not develop any evidence of syphilis and all subsequent tests on the infants' blood were negative. He also reported 53 infants with positive cord Wassermann tests although the mothers' blood Wassermann tests were negative and of this group 23 were doubtful and probably non-syphilitic, while 30 were syphilitic. Dunham[3] also reports 14 patients with positive Wassermann tests at birth without clinical evidence of syphilis who had subsequent negative Wassermann reactions.

With the above evidence it seems a good plan to adopt the policy of Dunham[4] in treating these cases which is as follows: "The infant has always been regarded as syphilitic and treated when any signs of active syphilis were present regardless of Wassermann reaction, or when, in the absence of clinical syphilis in infants, the mother had had a active or a recent syphilitic infection and had not received treatment."

The treatment should, of course, be prophylactic in the form of treatment of the pregnant mother as early during pregnancy as possible and as extensive as possible. Roberts[5] has shown that of 534 syphilitic mothers receiving antisyphilitic therapy of varying intensity 81, or 17.8 per cent, produced syphilitic infants; 188 received nine or more injections of neoarsphenamine and produced only 10, or 5.3 per cent, syphilitic offspring.

In treating the active cases the drugs used are mercury, arsenic, bismuth and iodides. Mercury has been in general use a longer period than any of the others and is still considered the main drug by some. It can be given by inunction in form of blue ointment, using an amount equal in size to a pea and applied alternately on inner and outer sides of each thigh for varying periods of time as found necessary. It also can be given in the form of mercury with chalk in dose of one-half grain twice daily up to six months of age, one-half grain three times daily from six months to one year of age, one grain three times daily from one year of age upward. This or the inunction can be given throughout the course of treatment.

Of the arsenicals, sulpharsphenamine is

Fig. 2. (a) Case II. before treatment (April 25, 1932).

probably as good and since it is much simpler to administer than other is the drug of choice and is given intramuscularly, using 0.1 gm. per fifteen pounds of body weight, giving four doses at three-day intervals and four at weekly intervals and alternating with bismuth or mercury. Stovarsol, a preparation containing 27 per cent arsenic, given by mouth, is a new drug introduced recently. One of the advantages of this drug is that it can be prescribed, thus doing away with frequent visits to the physician's office, so often the cause of insufficient treatment. With our present knowledge and reports of serious untoward effects from administration I consider the drug still in its experimental stage and not ready for routine adoption.

Iodine is given in the form of syrup of ferrous iodide, dosage being based on infant's age. The iodine not only is beneficial but the iron present also aids the anemia so often present.

Bismuth can be used to supplant the mercury in the interval between courses of sulpharsphenamine but in my experience and in that of others more benefit can be derived from mercury.

A patient should be treated so long as clinical or serological evidence is positive and when the Wassermann test becomes negative, should be kept under observation for several years with frequent spinal fluid and blood Wassermann tests to elicit any recurrence in the infection.

CASE REPORTS

Case 1.—G. H. Age seven weeks, seen April 4, 1932.

Chief Complain.—Cries a great deal; cannot use arms and legs and pain upon moving same; sore mouth; cold in nose.

Present Illness.—Mother stated infant had seemed to progress fairly well up to ten days prior to entrance except for "cold in nose" and at this time noted when dressing and bathing, the infant cried when arm and legs were moved. Three days later noted did not move arms and legs and lay limp and cried when moved. Noted sores around mouth, anus and genitalia ten days ago. Cried day and night as if in pain. No fever since onset. Birth history was normal.

Family History.—Five sisters and brothers living and well; father living and well; mother had one miscarriage at fourth month between first and second normal births. Mother had Wassermann test taken at fifth month of pregnancy and reported negative.

Physical Examination.—Weight nine pounds, well developed but poorly nourished infant seven weeks of age lying with hands at sides, crying when moved, also when legs are moved. Pupils equal but fixed; bloody exudate from both nares with ulcerations on septum and fissures around nasal orifices. Bleeding fissures around mouth, ulcers on palate and gums. Liver one finger below costal margin, spleen not palpable. Fissures around anus; only skin involvement other than femoral glands. The extremities revealed swelling, crepitation and marked pain at shoulders, elbows, knees and ankles, especially at ankles, and foot dangled about and infant screams with pain

Fig. 2. (b) Case II. after treatment (Sept. 6, 1933).

upon passive motion. No paralysis of muscles, no involvement of middle of shafts of bones.

Laboratory.—Wassermann, Kahn, and Kline-Young tests, positive (four-plus). Urine, normal. Mother's blood Wassermann, Kahn, and Kline-Young tests, positive (four-plus).

Diagnosis.—Congenital syphilis with Parrot's pseudo-paralysis.

Treatment.—Mercurial ointment inuncation daily for three weeks then twice weekly throughout treatment except when given mercury intramuscularly. Two per cent yellow oxide mercury ointment in nares twice daily until rhinitis had cleared up. Syrup of ferrous iodide ten minims, twice daily throughout course of treatment. Sulpharsphenamine 0.05 gm. twice weekly for two weeks then weekly for four doses. Then mercury succinimide grains 1/50, intramuscularly for eight weeks. During course infant was on cow's milk—water—Karo formula: one ounce tomato juice daily and two teaspoonsful cod liver oil daily. All clinical evidence of syphilis gone and Wassermann, Kahn, and Kline-Young tests negative on this date, August 15, 1932.

November 10, 1932, blood Wassermann, Kahn and Kline-Young tests negative. May 15, 1933, blood and spinal fluid Wassermann, Kahn, and Kline-Young tests negative and colloidal gold test on spinal fluid negative. Case clinically and serologically cured.

Blood Wassermann, Kahn, and Kline-Young tests negative on April 13, 1934.

Roentgen ray demonstration of bones before and after treatment.

Case 2.—J. A. Age seven weeks, seen April 23, 1932 with chief complaint: Cold in nose, breaking out on body, fretfulness.

Present Illness.—Mother stated infant had had cold in nose since birth, rash on body one week, for past week infant had neither slept day nor night. Birth history was normal.

Family History.—Mother living and had received treatment for positive Wassermann four years ago; no miscarriages or stillbirths; one child, thirteen years old, living and well; father living and well.

Physical Examination.—Weight seven and one-fourth pounds, small infant fretful and crying. Both nares were discharging mucopurulent material; excoriation around nares; fissures on lips; acute iritis of right eye with pinpoint opacity in lateral aspects of iris. Left pupil distorted and fixed and did not react to light. Spleen and liver not palpable; no epiphyseal enlargement or pain; condylomata around labia and anus; generalized hard, shotty glands. Maculopapular eruption over back, abdomen, and extremities with some pustules.

Laboratory.—Urine, negative. Blood Wassermann, Kline-Young, and Kahn tests on infant positive (four-plus). Wassermann, Kline-Young, and Kahn tests negative on mother; seven days after administration of neo-arsphenamine, Wassermann negative, Kahn and Kline-Young (two plus); after two weeks Wassermann negative, Kahn and Kline and Young (four-plus).

Diagnosis: Congenital Syphilis.

Treatment.—One drop of 0.5 per cent atropine sulphate in each eye daily until dilitation, then every other day until eye condition cleared up. Two per cent yellow oxide of mercury ointment in nares until "snuffles" cleared. Syrup of ferrous iodide, 10 minims three times daily throughout course of treatment except when given mercury intramuscularly. Gave 0.05 mg. sulpharsphenamine intramuscularly twice weekly for four doses then weekly for four doses then grain 1/50 mercury succinimide intramuscularly weekly for eight weeks. Rash, eyes, snuffles, glands to normal after three weeks' treatment. Child given formula cow's milk—water—Karo dilution; cod liver oil, two teaspoonfuls daily, tomato juice one ounce daily. Cereals at four months. Infant gained and progressed nicely but stopped treatment and was unable to get in touch with case until September 6, 1933 at which time the blood Wassermann, Kahn, and Kline-Young tests were negative and roentgen ray examination of the bones revealed them to be normal.

Blood Wassermann, Kahn, and Kline-Young tests, negative on April 18, 1934.

Roentgen ray demonstration of bones before and after treatment.

Case 3.—A. O. Age eight weeks, seen January 19, 1933.

Present Illness.—Mother brought infant because when four months pregnant contracted primary lesion from husband and when six months pregnant developed secondary lesion and only had Wassermann tests since delivery at which time found to be four-plus. Infant had progressed nicely up to present time with no snuffles, etc.

Family History.—Mother living and had one miscarriage one year ago at two months; father living and receiving anti-luetic treatment for syphilis contracted nine months ago. One child six years old, living and with negative Wassermann, Kahn, and Kline-Young tests. Birth history is normal.

Physical Examination.—Revealed a well developed open and nourished infant weighing 10-3/4 pounds and the only abnormal findings were slight enlargement of liver and to a less extent the spleen, generalized enlarged glands to size of peanut kernel. Also non-specific vaginitis.

Fig. 3. (a) Case IV. before treatment (Sept. 5, 1933)

Laboratory.—Wassermann, Kahn, and Kline-Young tests positive (four-plus). Urine normal.

Diagnosis.—Congenital syphilis.

Roentgen ray demonstration of bones showed no bone pathology.

Treatment.—Syrup of ferrous iodide, 10 minims, twice daily throughout course of treatment. Mercurial ointment inunction daily for two weeks then twice weekly throughout treatment except when given mercury intramuscularly. Gave 0.075 gm. sulpharsphenamine twice weekly for four doses then weekly for four doses. Then gave eight weekly injections of 1/50 grains mercury succinimide. Then repeated 0.075 gm. sulpharsphenamine intramuscularly weekly for three doses then 0.1 gm. weeky for four doses and this brings us up to the present date July 31, 1933 at which time the Wassermann, Kline-Young, and Kahn tests are negative.

This child has progressed nicely except for one respiratory infection associated with parenteral diarrhea for several days and one weekly treatment was discontinued on that account. Mother refused further treatment of infant.

Case 4.—H. J. 7 weeks old, seen on September 5, 1933.

Present Illness.—Mother brought infant in because he cannot use right arm. Mother noted infant cried when right arm was moved beginning seven days ago and for two days had not used arm and cries with pain when used. Swelling of right elbow for seven days; snuffles for three weeks, no fever and in apparent good health until present illness. Mother had never received any anti-luetic treatment.

Family History.—Mother living and well and this was her only pregnancy; father living and has four-plus Wassermann test, mother has also four-plus serum test. Birth History.—Normal cephalic delivery.

Physical Examination.—Well developed and nourished, nine and one-half pound infant with right arm dangling at side but moved fingers, and there was pain upon manipulation of arm and forearm. Pupils equal and react to ight; muco-purulent discharge from both nares with excoriation of mucous membrane of nares. No fissures around nares or mouth. Spleen and liver not palpated; enlarged axillary, femoral, cervical and inguinal glands. No rash on skin. Marked crepitation, sweling and pain at right elbow and right arm lying at side but did move arm when forced to. Slight swelling of left elbow and both knees and some pain but no crepitation.

Laboratory.—Wassermann, Kline-Young, and Kahn tests, positive (four-plus); urine normal.

Diagnosis.—Congenital syphilis with Parrot's pseudo-paralysis.

Treatment.—Given 5 minims of syrup of ferrous iodide three times a day; mercury ointment inunction daily. Given 0.05 gm. sulpharsphename at three day interval for four doses then weekly for four doses, then given 0.75 grains thio-bismol weekly for eight doses and this brings us through treatment of December 4, 1933.

December 11, 1933, Wassermann, Kahn, and Kline-Young tests of blood negative. Another blood Wassermann, Kahn, and Kline-Young tests negative on February 20, 1934.

Roentgen ray demonstration of bones before and after treatment.

Periodic specimens of urine on above cases were run to keep check on kidneys.

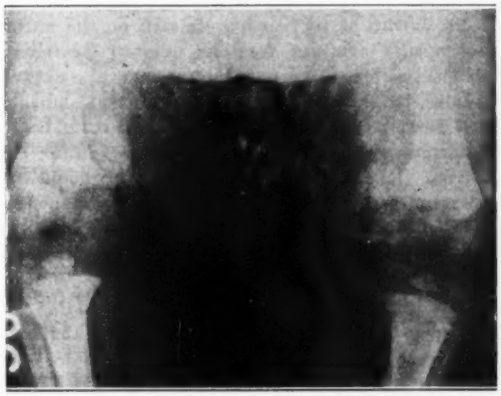

Fig. 3. (b) Case IV. after treatment (Oct. 9, 1933).

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DISCUSSION

Dr. Joe E. Green, (Laurel): I want to thank Dr. Jarratt for this splendid paper on the all important subject of congenital syphilis. I am sure the general practitioner has no disease to contend with that gives him more concern than congenital syphilis. I think that we should be more careful especially in making a careful study of our cases in infants and young children who suffer for months with syphilis that will not respond to treatment because they are never diagnosed. We should enter into the family history and make every test necessary to rule out congenital syphilis.

Only a few months ago I was treating a little boy five years of age who had a continuous cough which would not respond to treatment. I felt a roentgenogram of the lungs was necessary to rule out a possible tuberculosis and the lungs showed a definite involvement which the roentgenologist diagnosed as pneumonia. Finally a Wassermann was made and a three-plus reaction found. The longer I practice medicine the more convinced I am that a Wassermann should be run on the pregnant mother because if we realize we are dealing with syphilis of the mother a great deal can be done toward protecting the unborn baby by treatment of the mother during the nine months of expectancy. If we know at the birth of the baby there is a potential syphilis we can continue our treatment and accomplish a great deal more towards curing the patient than if we had waited several years and had somebody else make the diagnosis for us after we had failed.

Dr. Jarratt is to be congratulated on the splendid results obtained from his line of treatment. Of course we all pretty well agree if we give iodides, mercury and arsenic in sufficient amounts and persist over a long period we can cure these unfortunate children. The principle thing is eternal vigilance. In the beginning we should impress on the parents that it is going to take considerable time and if they will bring the child as directed we can probably give them a well child and if they fail to do so he will probably end up in the insane asylum.

I have found that the insane asylum is the best impressor on the minds of the mothers and fathers, even beats the graveyard because most parents would rather know their children were dead than to be confined in an insane hospital for life.

Dr. Robert A. Strong (New Orleans, La.): I regret with Dr. Green that this room is not full of members, so that more could have had the opportunity to hear Dr. Jarratt present his paper, because he has brought to you today a most comprehensive resumé of what is thought about congenital syphilis in 1934. One of the things that I hope you will carry home with you, and one which I would like to emphasize, is the assistance which you can procure with the roentgen ray in making a diagnosis of congenital syphilis. His slides, I am sure, have convinced you of this. Too often, as Dr. Green has told you, we see a child who shows nothing other than malnutrition. The conventional snuffles, parchment-like peeling of the hands and feet, and the characteristic lesions of the skin may be late in appearing. If, however, you suspect syphilis, a roentgenogram of the bones may reveal it long before the conventional signs. Another thing which has doubtless impressed you, is the gratifying response to treatment which is so promptly evidenced in the bone changes which have been shown in the slides. This is the experience of most of us, and we have been trying to emphasize the significance of bone changes in congenital syphilis to the students.

An early diagnosis of syphilis is of course most important and the assistance which we may expect of the roentgen ray I think justifies its use as soon as possible after we suspect the existence of syphilis.

With reference to suspecting other infectious diseases in very young babies, we must not lose sight of the fact that babies under six months possess a natural immunity against such infections. As far as present knowledge has progressed, this immunity may be considered to have been acquired by the newborn in several ways. It may be through the placental transmission of either an antigen capable of stimulating an active immunity lasting for at least eight months, or through antibodies resulting in a passive or temporary immunity. The mammary transmission of antibodies through colostrum was thoroughly established by Theobald Smith and his collaborators a number of years ago, and it has since been confirmed by several others. More recently a specific resistance of rapidly growing tissues, which has been called "tissue immunity" has been suggested to account for the immunity of the newborn. In addition, the presence in the cord blood of substances antitoxic to scarlet fever, poliomyelitis, diphtheria, and measles has been demonstrated by several workers. After confirming this, and being inspired by the belief that the lasting immunity possessed by newborns was more

active than passive, McKhann, Chu, and Coady prepared an extract of pooled placentas with which they have successfully prevented or attenuated measles in a series of over one hundred children. It will therefore be understood why many of these infectious diseases cannot be confused with early congenital syphilis.

I hope that you will carry home with you the message which Dr. Jarratt has brought today, and I want to congratulate him on the presentation of a splendid paper.

Dr. N. C. Womack, (Jackson): This subject is of interest to every man who practices medicine, regardless of what kind of practice he does. As the doctor brought out, when we begin to make a Wassermann on every expectant mother, early, we will have taken a great step toward getting rid of congenital syphilis.

A routine blood test in all children examined will show a relatively high positive Wassermann, in my practice approximating two per cent. Very few of the positives show any physical signs at the time of examination that would not cause a Wassermann to be made, hence the necessity of a blood Wassermann in all cases that have not before been examined.

Congenital syphilis seems to be difficult to cure. We do not know what percentage of them in later life show the effect of the hereditary infections. It may show up in the vascular or bony tissue, or paresis.

Dr. Jarratt has brought us a very able paper and one could profit a great deal by carefully reading the paper and applying it to his practice.

Dr. W. H. Frizell, (Brookhaven): You notice from vital statistics that America is charged with more maternal mortalities and more infant mortalities than other countries. You frequently wonder why you have delivered so many stillborn babies, and you do not know why. When Dr. Jarratt wrote me his title, it became very evident to me that we would get information of the true cause of so many stillborn infants.

Dr. Jarratt (Closing): I wish to thank the doctors for their liberal discussion. There is only one thing I wish to reemphasize and that is make the diagnosis of syphilis in the mother before or during early months of pregnancy so she can receive anti-syphilitic treatment insuring a non-syphilitic offspring in a large per cent of cases. If a syphilitic offspring should occur treat and treat early and extensively enough to cure the condition.

THE VALUE OF THE QUANTITATIVE SKIN TUBERCULIN TEST IN ADULTS*

By

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The intradermal tuberculin test has long been used to good diagnostic advantage in infants and very young children; its value in older children and adults is generally not appreciated. This is regrettable, for although its usefulness in adults is limited to certain cases, it is a most informative test when employed quantitatively and interpreted correctly.

Forty-four years ago Koch introduced old tuberculin and since then an incredible amount of literature has been amassed on the subject. Much of it is controversial due, in great measure, to the complexity of both the pathology of tuberculosis and the nature of tuberculin. Particularly unsettled has been the important consideration of the relation of allergy to immunity, for in the explanation of this relation lies the solution of the significance of tuberculin. Some of the results of splendid research on tuberculin have been used by others to disprove the very facts the investigators thought they had established. Arnold Rich quotes Zinsser's own words to prove a point against Zinsser[4] and uses statements made by Krause to show where Krause errs[5]. Despite this maze of seeming uncertainty there are a few facts which can be considered definitely and unequivocably proved and more or less generally accepted. A brief summary of some of these facts will illustrate the principles involved in the tuberculin reaction.

Old tuberculin is a product of the tubercle

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bacillus, or the tubercle bacillus and the culture upon which it is grown. The active principle of tuberculin is a protein or a protein disintegration product[3]. Tuberculin is made by boiling an entire culture of tubercle bacilli, filtering off the bacilli and evaporating the filtrate on a water bath to a concentrate many times smaller than its original volume. From this process is obtained a soluble substance, protein in nature, which acts as an antigen. When injected into an individual previously infected and who has thus been made hypersensitive, it combines with a specific antibody. It is therefore a specific antigen-antibody reaction[4,5]. The bland tuberculo-protein which is relatively harmless to those not previously infected by the tubercle bacillus, and to those who though previously infected are for some reason no longer hypersensitive, when injected into a hypersensitive individual is converted into a powerful irritant, noxious in its effects, capable of causing tissue necrosis. At the site of injection an irritation is set up which histologically resembles the tissue damage that would be caused by the injection of a strong acid. There are of course, marked variations in the intensity of the tuberculin reaction in different individuals which as Stewart[1] points out "presumably parallel the degree of hypersensitiveness which infections induce in various tissues of the body. In other words the severity of a cutaneous reaction is more or less proportional to the degree to which necrotizing power of tuberculin is enhanced in the individual case." The tuberculin reaction is dependent on the presence in the body of living or dead tubercle bacilli. There must be an anatomical tubercle. Thus a positive reaction indicates tuberculous infection, and not tuberculous disease[1].

Much trouble in the field of tuberculin has resulted from the attempts of certain investigators to show the interdependence of allergy and immunity, and it is not unusual to read of allergy being an "index of resistance" or "allergy paralleling immunity." Albert-Weil[2] points out the essential difference of tuberculous allergy from true immunity as well as Cummins[3] who claims that "immunity and allergy may be due to the same cause (infection) but they are no way identical or even necessarily co-existant." Rich[4,5] has methodically and convincingly demonstrated the fallacy of such a dependence and has shown that the allergic or hypersensitive condition plays a part no less important than that of immunity, being a direct agent of tissue destruction and determining the character and extent of the lesions and symptoms which are the result of infection, but never is it the essential basis of immunity. Recently Rothschild, Bernstein and Friedenwald[6] have presented striking experimental proof of some of Rich's contentions. Sound indeed are the claims of Rich[4] that there is no proof that the allergic reaction is necessary for the more rapid death of bacilli in the immune body, and that the bodily changes responsible for the acquired interference with the life of the bacillus are quite separate and distinct from the allergic inflammatory-necrotizing tendency. Despite abundant and convincing proof that the mechanisms are separate it is well known that in both man and experimental animal, immunity and allergy appear at about the same time following infection, and are usually coexistant thereafter. There are numerous conditions in the later stages which interfere with the degree of hypersensitiveness, and considerable confusion then results in the proper interpretation of the tuberculin reaction. In the beginning, however, the coexistence of allergy and immunity serves the purpose of identifying the presence of tuberculous infection in the individual tested.

It is well known that the great majority of individuals have been at one time or another infected with tubercle bacilli and as a result are hypersensitive to tuberculo-protein. Therefore the number of reactors among adults will be great. It is practically impossible to standardize tuberculin due to the method of preparing it. Each lot of tuberculin therefore must be tested in graded dilu-

tions to assay its strength. In order to distinguish the actively infected from those who are hypersensitive following previous infection, the critical level for every batch of tuberculin must first be determined. This is done by making five, six or more graded dilutions of old tuberculin, say from 1-1,000 to 1-40,000 or even as high as 1-100,000 and injecting O.1 c.c. of each of these dilutions intradermally into the forearms of individuals who are known to have active tuberculosis as well as individuals who are supposedly not infected. Many of the normals will react to the stronger or lower dilutions but will fail to react to the weaker or higher dilutions. Thus a dilution can be determined which will be strong enough to give a positive reaction in individuals with active tuberculosis and weak enough not to react in those not actively infected. For each lot of tuberculin therefore there is a definite activity level or critical threshold. It matters not which brand of human tuberculin is used provided it has been properly prepared and is potent. The important consideration is to determine quantitatively the strength of the tuberculin to be used. The tuberculin[6] we have used was made from Saranac tubercle bacilli grown on a protein-free culture media. It was diluted with saline to which one-fourth of one per cent of phenol was added. Dilutions of 1-1,000, 1-10,000, 1-20,000, 1-30,-000 and 1-40,000 were made. One-tenth of a c.c. each of 1-1,000 and 1-10,000 and the saline containing the phenol were injected into the skin of the left forearm about two inches apart. The control injection was always the distal one. In the skin of the right forearm the 1-20,000 1-30,000 and 1-40,000 dilutions were injected. We first tested thirty-five apparently normal young women, whose chest roentgenograms showed no evidence of tuberculosis and whose histories and physical findings fairly precluded the possibility of active tuberculous infection. The majority of these individuals showed positive reactions to the 1-1,000 and 1-10,000 and a few showed reactions to the 1-20,000. Only one of the group reacted to all of the dilutions. Therefore the 1-30,000 dilution was considered the diagnostic level or the level of clinical activity. Next we repeated this routine with thirteen far advanced cases in the Dibert Memorial Hospital and only three showed reactions to the weaker or higher higher dilutions as well as the stronger or lower, and five reacted only in the 1-1,000 and 1-10,000 dilutions. The remaining five of these patients with far advanced pulmonary tuberculosis failed to react at all. This, of course, was to be expected as it is well known that in certain conditions such as overwhelming tuberculosis, acute infections, notably measles, sepsis, anemia, metabolic disorders and general debility there is a marked decrease in tuberculin hypersensitivity which at times requires very large quantities of tuberculin to cause reactions. The strength of tuberculin required is many times that of the strongest we employ, namely O.1 c.c. of 1-1,000 or O.1 mg. In such patients the quantitative tuberculin test as here employed is of course useless, but in overwhelming tuberculosis the diagnosis is usually obvious. Where this test is most useful is in early tuberculosis where the evidence on physical examination and by roentgenogram is not definite enough to make a certain diagnosis. Such early cases constitute a large and important class, and it is possible only by means of a quantitative test to say whether or not there is active tuberculosis and to differentiate non-specific pneumonitis, and confusing lung infections caused by influenza, rheumatism and so on. We therefore selected sixty patients from the Out-Patient Department of Charity Hospital and Touro Infirmary and used the test as described. All of these patients had signs indicative of early pulmonary tuberculosis by roentgenogram and some few had slight vesicular involvement. Twenty-five of these patients showed reactions to the weaker or diagnostic levels. They have all been carefully re-examined and re-rayed and allowing for mistakes of subjective evaluation all of the positive reactors may be considered truly tuberculous.

Atstatt[7], Blair and Galland[8] have reported series which demonstrate the value of the quantitative tuberculin test in osseo-articular disease, and King[9] has reported the use of the quantitative tuberculin test in 225 patients suffering with a wide variety of disorders. The results were in accord with clinical findings, 205 times or 90 per cent. Our findings in these cases of pulmonary tuberculosis agree essentially with those of Atstatt, Blair and Galland, and King, and further strengthen the view expressed many times that the tuberculin test to be exact and useful must be employed as a quantitative test.

SUMMARY AND CONCLUSION

The tuberculin test is a specific test. It is based on the principle that a specific antigen unites with an antibody in an individual made hypersensitive by infection with the tubercle bacillus and an otherwise bland substance, tuberculo-protein becomes a noxious irritant. In order to elicit a positive tuberculin reaction, living or dead tubercle bacilli and an anatomical tubercle must be present. Inasmuch as the great majority of individuals have at one time been infected and because tuberculin does not lend itself to perfect standardization, it is necessary to determine a critical threshold of activity for every lot of tuberculin. When this is determined it is possible not only to tell whether an individual has been infected in the past, but it denotes the presence of activity at the moment. In the absence of overwhelming tuberculosis, anemia, metabolic disorders, general debility and measles, reactions to dilutions at or above the critical threshold are diagnostic of active tuberculosis. As an aid for the certain diagnosis of early pulmonary tuberculosis in adults obviously such a test is invaluable.

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Note: We wish to thank Dr. Herbert Rothschild who generously supplied us with the tuberculin used in this study.

DISCUSSION

Dr. W. H. Browning (Shreveport): I wish to emphasize Dr. Sullivan's statement that the strength of each batch of tuberculin must be determined. Blair and Galland called attention to this in checking the results that were obtained by Atstatt. One is impressed by the critical point that is established by each of these observers. Dr. Sullivan points out that a dilution of 1:30,000 is the critical point in his series. Atstatt in a series of cases presented in 1927 found that with the tuberculin he was using the critical point was a dilution of 1:10,000. Blair and Galland in a report in 1931 used a dilution of 1:100,000 as the critical point. In other words, there is a marked difference in the potency of the tuberculin used by these investigators. Blair and Galland suggested that both human and bovine tuberculin should be used, otherwise, an occasional case will be diagnosed incorrectly. The quantitative test according to Blair and Galland is not necessary in children under eight years of age. The Mantoux test is reliable in these cases.

Dr. Sullivan has stated that the tuberculin reaction is an allergic reaction, which is correct. The hypersensitiveness of the tuberculin type is not due to any unusual property of the active substance but is due to some peculiarity of the infected individual, apparently inherent in tuberculous tissue. The hypersensitiveness of infection which includes infections by the tubercle baccillus, B. mallei, B. typhosus, B. abortus, and trychophyton is different in its nature from that of anaphylaxis.

The test if correctly done should be of great value in the diagnosis of early tuberculosis. It has only one drawback and that is the technicalities in its use will probably cause it not to be used by the general practioner, who, as a rule, is the first one to see these individuals with early tuberculosis.

Dr. W. J. Durel, (Covington): I cannot sit silent whenever the administration of the tuberculin test is discussed. For the past twenty-five years I have repeatedly emphasized the value of old tuberculin as an important asset in the

diagnosis of tuberculosis. Unfortunately, old tuberculin has not been used by the profession at large as its clinical value warrents.

By neglecting the use of old tuberculin and in not giving the tuberculin tests to our suspected cases of tuberculosis, many cases of tuberculosis have not been recognized in the early stage and the morbidity and mortality of the disease have been allowed to go along with ravaging results, especially in the young between 16 and 30 years of age.

I used the quantitative tuberculin test fifteen years ago, and found it not only difficult to administer to children, but was disappointed with the results. We cannot detect "active" tuberculosis with such a test, nor with any of the cutaneous or intracutaneous tuberculin tests. Many cases of "latent" and "active" tuberculosis escape detection because they do not react to fractional doses of old tuberculin, and require larger doses of one milligram.

The tuberculin test is of as much clinical value in the adult as in the child. Any one harboring in his body a microscopic or larger tuberculous lesion will react to the intracutaneous tuberculin test, and will keep on reacting until he has completely eradicated the disease and rid himself of all tuberculous foci. He does not react to tuberculin because he once had tuberculosis, but because he still has a "latent" or "active" tuberculous lesion in his body.

I always ask myself this question upon testing any individual: Is he tuberculous? If he is, are the tuberculous lesions "latent" or "active?"

By giving the von Pirquet or the intracutaneous (Mantoux) tuberculin tests—injecting 1/10 c. c. of saline solution in the arm (not in the forearm) as a control, and one milligram of old tuberculin in each extremity repeated negative results eliminate the presence of tuberculosis, and a positive reaction shows that either a "latent" or an "active" tuberculous focus is present.

It is my custom after acquiring a positive reaction to the intracutaneous tuberculin test to give three to ten milligrams of old tuberculin subcutaneously, in order to determine the activity of the tuberculous lesion. Systemic, focal, and skiagraphic reactions to old tuberculin subcutaneously indicate different phases of "activity", but the surest sign of "activity" lies in the changes observed in the lymphocytic-monocytic ratio.

The change in the ratio between the lymphocytes and the monocytes, and the shifting of the neutrophylic picture to the left have proven of greatest interest and value in the prognosis and diagnosis of "active" pulmonary tuberculosis.

The lymphocytic-monocytic index is of most clinical value in deciding upon the early administration of artificial pneumothorax, and in determining the improvement or failure of the artificial pneumothorax.

In "active" tuberculosis the lymphocytes fall to under twenty, and the monocytes rise to above eight, when three milligrams of old tuberculin are given subcutaneously. The lower the lymphocytes fall, and the higher the monocytes rise; the more "active" are the lesions, and the more aggressive must be our line of treatment.

In making a differential blood count, the ordinary smear with Wright's stain is sufficient, and two to three hundred cells should be counted.

In conclusion, the subcutaneous tuberculin test is not dangerous and does not promote "activity" in the lesions, nor does it disseminate the lesions. This statement I make unreservedly, for after giving 3 to 10 milligrams of old tuberculin subcutaneously to hundreds of tuberculous patients at Dibert and in my private institution in Covington, I have not seen a single detrimental effect on any patient. In the absence of tubercle bacilli the intracutaneous and subcutaneous tuberculin tests are essential in determining the tuberculous nature of the suspected lesion. Anyone reacting to old tuberculin intracutaneously is tuberculous, and upon autopsy will always show some tuberculous foci somewhere in the body. With the tuberculin tests one can be certain of his diagnosis, and positively safeguard his statement as to the tuberculous nature of his findings. This we have repeatedly seen at Dibert. Let us use the tuberculin tests more freely, and diagnose our cases earlier, thus giving our patients a better chance for a complete recovery.

A PRACTICAL TUBERCULOSIS CASE-FINDING PROGRAM*

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As an introduction to this paper I would like to give a brief resumé of the tuberculosis problem in the State of Mississippi as a whole. In 1932 it was the second greatest cause of deaths in the State, being exceeded only by heart disease. Three hundrd and forty-four more deaths were caused by it than by all the pneumonias combined. It is responsible for one death out of every fifteen from all causes. All classes of people are susceptible. It takes its toll even from

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the rank and file of our medical profession; the rich and the poor alike are subject to its ravages. Aside from cancer it is the most loathsome disease of mankind. In 1932, eleven deaths occurred under five years of age; sixteen under ten; 159 between ten and twenty (of this number 91 per cent were colored); 445 between the ages of twenty and thirty; (88.6 per cent of whom were colored); 254 between the ages of thirty and forty (of whom 81.4 per cent were colored); 170 between the ages of forty and fifty, (of which seventy per cent were colored); 154 betwen the ages of fifty and sixty, (of which fifty-four per cent were colored); 78 per cent of the deaths from this disease were between the ages of ten and fifty. One third of the deaths occurred among the age group from twenty to thirty. It is evident from the above figures that the negro race is more susceptible than the white race and die earlier, and that the disease takes its greatest toll during young adult life, just some facts we already knew, repeated here to more forcibly impress upon us the necessity of immediate and concerted action on the part of our profession. In prevalence it is surpassed only by venereal disease, influenza and malaria. The medical profession reported 1024 cases in 1932, which was 317 less than the number of deaths from this disease. It is evident that we doctors of Mississippi are not finding our cases of tuberculosis before we sign the death certificate or else we are not reporting the cases found. Frankly I think we are not finding them. The diagnosis of any other malady so prevalent as tuberculosis certainly would not go unchallenged by our profession. The very nature of the disease warrants early diagnosis if in the light of modern medicine, we are to give our afflicted population the efficient service to which it is justly entitled.

From an exhaustive study of the records of various case finding plans where equipment, funds and personnel have not been spared, it appears that approximately one per cent of our population has active tuberculosis. If this be true, there are about twenty thousand cases in the State of Mississippi instead of 1396 which were reported by death certificates in 1932. The difference between these two figures gives us an idea of the magnitude of our problem.

As a result of previous and present educational measures and the application of modern methods of treatment people who are afflicted with tuberculosis are gradually coming from their places of seclusion and seeking help from the medical profession. Taking advantage of this forward movement on the part of these unfortunate people, who are usually past human assistance, it opens the door to two very practical case finding plans: first, case contact plan; second, tuberculin tests for all our patients, especially children, with final diagnosis on all positive reactors.

Before discussing either or both of these plans it will be necessary to explain the practical methods used in tuberculin tests and the significance of reactions. Koch's old tuberculin is used either concentrated or diluted according to the kind of test to be employed.

VON PIRQUET METHOD

Many children are afraid of a needle and some parents object to having any foreign material injected into their children's bodies. They will often consent to the Von Pirquet test after the method is explained to them. It also has an advantage for physicians who do not make frequent use of tuberculin. No freshly made dilution is required as full strength tuberculin is used which will keep potent for a long time. The test is made by lightly scarifying the skin, which has first been cleansed with 95 per cent alcohol, being careful to remove all of the epidermic layer and to avoid bleeding. Then apply a small drop of full strength Koch's old tuberculin, allowing it to remain for at least ten minutes so as to give it ample time to be absorbed. No covering should be put over the scarified area. The third to the fifth day is the usual time to read the results. Some delayed reactions, however, may appear as late as the seventh day. A positive reaction is one that shows edema and redness after forty-eight hours. If there is no edema the reaction should be regarded as negative.

MANTOUX OR INTRACUTANEOUS METHOD

Koch's old tuberculin is used but is diluted where 0.1 c.c. equals .01 mgm., 0.1 mgm, and 1.0 mgm. respectively. These dilutions are made in the following manner: To 1000 c.c. distilled water add eight grains sodium chloride and 2.5 c.c. pure phenol. Sterilize this by boiling

fifteen minutes on two consecutive days. Label four bottles, stock solution, 1.0 mgm., 0.1 and .01 mgm. respectively. In bottle number 1 place 9 c.c. diluent and 1 c.c. Kochs old tuberculin which will keep indefinitely if kept in a cool place. In bottle number 2 put 9 c.c. diluent and 1 c.c. from bottle number 1. In bottle number 3 put 9 c.c. diluent and 1 c.c. from bottle number 2. In bottle number 4, put 9 c.c. diluent and 1 c.c. from bottle number 3. Bottle number 4 will contain 0.01 mgm. per 0.1 c.c.; bottle number 3 contains 0.1 mgm. per 0.1 c.c.; and bottle number 2 will contain 1.0 mgm. per 0.1 c.c. Perhaps it would be better if the various dilutions to be used in the intracutaneous test were freshly prepared at one central place, and made available for use by any physician who wants it. The injections are made similar to the Schick test. It is best to use a 1 c.c. tuberculin syringe with a 26 gauge, one-half inch platinum needle. The advantage of the platinum needle is that it can be sterilized over a flame after each injection. In office work where means for sterilization are convenient any other 26 or 27 gauge needle may be used. The injections must be made intradermally and a rounded elevation formed at the site of the injection. For the first injection 0.1 c.c. of the dilution in bottle number 4 should be given. The patient should be instructed to return in 48 hours. If the reaction is negative a similar dose from bottle number 3 is injected in like manner in the other forearm. After 48 hours if the reaction is negative, a similar dose in similar manner is given from bottle number 2. If after 48 hours this proves negative the tuberculin reaction is regarded as negative. In the event the patient is not seen in 48 hours the reaction may be read in 72 hours. It has been my experience that a positive tuberculin reaction, like a positive Schick test, does not disappear as readily as some authorities would indicate. Like the von Pirquet test a positive reaction shows edema and redness at the end of 48 hours. Reactions in both tests are arbitrarily graded from one to four-plus. A one-plus reaction is one with slight but definite edema raised about 1 mm.; the area of redness which is less important is usually much larger. A two-plus reaction is one with well defined edema, raised somewhat more than 1 mm. and an area of redness which is usually larger than the area of edema. A three-plus reaction is one with extensive edema raised more than 2 mm. with wide area of redness but with no necrosis of skin. A four-plus reaction is characterized by extensive edema, redness and a spot of necrosis. It may be associated with elevation of temperature and malaise.

If following the injection of 1.0 mgm. of tuberculin the reaction is doubtful, especially when there is redness but no clearly defined edema at the site of injection, the patient, may be reinjected with 1.0 mgm. tuberculin using a control in the other arm. A positive tuberculin test always means the presence of tuberculous infection. In other words there are live tubercle bacilli somewhere in the patient's body. Failure to get a positive reaction, however, does not always exclude tuberculous infection. Sensitiveness to tuberculin may be absent in acute miliary or generalized tuberculosis. Unfortunately, the degree of reaction so far as known has no relation to the extent of infection. If tuberculin tests could differentiate between active and inactive lesions according to the degree of reaction, its value would be greatly increased. While the studies of Krompecker and Romer upon animals indicate that the more virulent the infection the greater the degree of hypersensitiveness, no such fixed relations exists in man. The conditions under which a negative reaction may be obtained should be carefully borne in mind, for if these can be excluded, a negative tuberculin reaction precludes, in all probability, an active or clinically important tuberculous lesion. A positive reaction therefore is to be regarded as a symptom or as another link in the chain of clinical evidence. The dilutions and methods of tests have been given in detail to impress upon you their simplicity and harmlessness. So far as I am able to ascertain there has never been a fatality from the von Pirquet test or intracutaneous tests, neither will they excite a latent lesion. They positively will not infect one with tuberculosis, but will reveal the presence of live tubercle bacilli in the tissue of the body, especially the lungs. Either may be used by any practitioner without fear of any harmful results so long as the dilutions are sterile and administered with a sterile syringe and needle, with site of injection properly prepared. In the event

the intracutaneous test is not properly given no harmful results are to be expected. Only the result of the test will not be reliable. After thoroughly understanding the technic of the tuberculin tests and confident no harm can come from their intelligent use we are now ready to consider our case finding plan. The general practitioners are the logical ones to initiate this plan and popularize it among their patients. Without their cooperation any case finding plan will be a failure.

The Framingham demonstration taught us that in an average community there are nine active and nine arrested cases of tuberculosis per annual death and an efficient case finding plan calls for the discovery of two new cases per annual death as a reasonable minimum of attainment. The same percentage of cases per annual death was found in Cattarangus county, New York. Seventy per cent of contacts gave a positive tuberculin test as compared with 16 per cent of non-contacts. After the contacts have been tested and positive reactors noted it will then be necessary to see that each one has a physical examination and if necessary a roentgenogram of the chest to determine the extent of the infection. It is true that all general practitioners are not chest specialists, however, there is usually one in every community who is especially interested in chest work who has adequate roentgen ray facilities. This one should be called into consultation until the status of infection is determined. In communities where no reliable chest man can be found a group of physicians may pool their positive reactors and secure the service of a specialist from the State Sanatorium. If necessary those who, after physical examination need roentgen ray work, could be taken to the Sanatorium and a final diagnosis made.

The second plan proposed is routine tuberculin tests for all patients, especially children. As stated above, approximately 16 per cent of all children from six to sixteen years of age, coming from homes where there are no known sputum positive cases, will give positive tuberculin tests. The idea is to get all practicing physicians interested in case finding among their patients. Only in this way will we be able to find and check latent infections which manifest themselves in later life. The process will necessarily be slow and expensive at the beginning but is our next task in the control of tuberculosis. Once the family physician adopts this plan it becomes easy for health officers to extend this work throughout all schools referring all positive reactors to their family physicians for final diagnosis. In the event some reactors have no family physician the health department may assume the responsibility for the final diagnosis and if found tuberculous, placed under the care of a practicing physician.

This case finding plan as presented probably sounds very simple. If so, this paper has not been in vain. I assure you that tuberculin tests are not expensive. They are so simple that any physician with a little practice can become very skillful in administering them and the positive reactors are so pronounced that they are easily read. Just remember there must be some edema and elevation before the reaction is positive. This furnishes a starting point for our case finding procedure. The total cost to the patient of the test, physical examination and roentgenogram, if necessary, will be less than the cost of diagnosis of most any other illness. We are in no way endangering the health or life of any patients, neither are we responsible for tuberculous infection in the positive reactors; just discovering the existence of early infection at a time when we can be of greatest service.

In no state where I have visited or studied their tuberculosis case finding method have I seen this plan in operation. It is usually left to well organized health departments to take the initiative. Consequently progress has been slow. After careful study I have concluded that the "Cart is in front of the horse", and not until it is reversed are we going to make as rapid progress as we should. A coordination of efforts on the part of both will be necessary to complete the task. Certain parts of the population can best be served by family physicians, other parts by the health department. In Cattarangus county, the health department furnishes the clinical and roentgen ray equipment and in the beginning attempted to do the work alone. They found this very difficult. Later they offered the services of a clinician to every interested physician. This service was available for office or bedside consultation. After the

general practitioners became interested, case finding was accelerated in proportion to the interest of the general practitioner. In 1931 this county had located 75 per cent of their cases on the basis of one per cent of the population having infection.

In Tennessee, the State Board of Health in cooperation with the county health department is assuming the responsibility for finding their cases of tuberculosis. When they are located they are left to the care of their family physician. There are three clinicians with portable roentgen ray equipment furnished by the State Health Department, one for East Tennessee, one for Middle and one for West Tennessee. The county health officer and nurse administer tuberculin tests to known contacts, underweight school children and any person who wishes to take it. The reactors are brought to the health department and given a physical examination and roentgenogram of the chest if in the opinion of the clinician it is necessary. The cost per person for the roentgenogram is about $2.00. This is very reasonable. The cost per person with roentgenogram in New York is about $5.00. I have visited several clinics in Tennessee and New York and have never seen a general practitioner assisting with the examinations. This revealed to me the lack of cooperation on the part of the local medical profession. An ideal plan for the State of Mississippi would be for the general medical profession to popularize the tuberculin tests, beginning first with known contacts and extending it routinely to all patients, especially children who come under their observation, with the state board of health furnishing clinicians and roentgen ray facilities for final diagnosis for communities where this service is not already available. The county health department, where they have adequate personnel can assist in pooling these cases, together with other positive reactors at a convenient place for examination, preferably at some physician's office.

Bedside clinical service should also be available to local physicians during the visit of the clinician to the various counties. The cost per person examined would not exceed $2.00 plus the service of the local physician. In 1932 a case finding plan was inaugurated in Forrest County. It was operated for twelve months on the case contact basis; later underweight school children and any one who wanted to take the tuberculin test were included. There have been tested 314 white people and 144 negroes, most of whom were known contacts. Thirty-eight per cent of the whites and 53 per cent of the negroes gave positive reaction. A diagnostic chest clinic has been held in the office of the county health department once each week, with a local physician in charge. Ninety-four cases of tuberculosis have been found in the county out of a possible 300. Considering the fact that after the first twelve months the county health nurse had to be discontinued for lack of funds, I am not at all discouraged with the results. Doctor Boswell has contributed materially to our progress, as most of the roentgen-ray work was done at the Sanatorium. The local medical profession has been very cooperative and I am sure if adequate personnel and facilities were available to do the follow-up work every child in the county could be given a tuberculin test. So far only a few of our physicians are administering the test. There are others who are only waiting diagnostic facilities which will be in the reach of the average individual.

CONCLUSIONS

1. Approximately 1 per cent of our population has active tuberculous infection. About one case out of every 12 has been diagnosed.

2. Tuberculin tests when properly prepared and administered are simple and harmless. Their general use will serve as a point of entrance to the great field of tuberculosis case finding. Positive reactions are not diagnostic of active tuberculosis but suggestive.

3. Routine tests of school children can best be done by the health officer. Positive reactors should be referred to their family physician.

4. Roentgen ray facilities and clinicians should be furnished by the State Board of Health and made available for clinics and bedside consultation when necessary.

5. The cost for complete diagnosis should not exceed $2.00 plus the charges of the private physician.

6. Within a five year period 75 per cent of our cases could easily be found and with supervised home treatment alone this would tend to

lower our death rate from this disease at least fifty per cent.

7. The psychological moment has arrived for a general case finding procedure initiated by the general practitioners of the state in cooperation with the State Board of Health and county health departments.

8. When we elected to enter the field of Medical Science we automatically assumed the responsibility of the prevention, discovery and treatment of the ills of the human race. Tuberculosis case finding is truly our responsibility. If we fail, our people suffer.

DISCUSSION

Dr. V. B. Harrison, (Clarksdale): While great strides have been made in the problem of tuberculosis control still we have not reached the irreducable minimum. Especially in Mississippi there is need for a more active program.

For all practical purposes the control of tuberculosis by a case finding program may be divided into four (4) divisions, namely, (1) the medical profession or private practitioner, (2) a traveling clinic, (3) tuberculosis surveys, especially in schools, and (4) an adequate public health nursing program.

The first division, the private practitioner, is a passive, but a very important factor. It is the private physician who has the first opportunity to diagnose tuberculosis. However, the private practitioner is handicapped by his position, for he must wait until he is consulted. This system of case finding will reveal only a limited number of cases.

The second division, the traveling clinic, conducted with the cooperation of the private practitioner, augments the efficiency of the private physician and covers a wider range. This service is excellent, but the cost of operation is very high. The clinic should be equipped with every facility such as roentgen ray, laboratory and other necessary apparati and be manned by a specialist in this field.

The third division, tuberculosis surveys in schools, has a limited field. With proper application the potential cases of tuberculosis can be ascertained. If the tuberculin test reactors are followed up, many contact sources may be found and eradicated. However, the efficiency of surveys must depend on the fourth division.

The fourth division, adequate public health nursing program, is the hope of the future. A public health nurse who works her district thoroughly will find many suspicious cases of tuberculosis. These suspects can be further investigated by the health officer and a final decision made. This service should be the backbone of a practical case finding program, and, where possible, supplemented by one or more of the other divisions.

In the diagnosis of tuberculosis we have at our disposal four methods, namely, (1) a careful history and physical examination, (2) tuberculin tests, (3) roentgen ray and (4) sputum examination.

Nothing can take the place of a careful physical examination, but in early and latent tuberculosis, especially if in a child, the findings may not be conclusive, and should be supplemented.

The tuberculin test has a field of usefulness in children, but all positive reactors should be followed up with a roentgen ray examination. One should never lose sight of the fact that a positive reaction means only the presence of an infection and not necessarily an active disease.

The sputum examination also has its limitations. Early cases rarely have a positive sputum. However, a positive sputum is conclusive.

The roentgen ray is the sheet anchor in tuberculosis work; especially is this true of childhood tuberculosis. Care in taking the picture as well as interpretation is important.

Although the diagnosis of childhood tuberculosis is very important, no task gives the clinician so much trouble. The roentgen ray will solve many of the questionable cases.

Dr. T. Paul Haney, Jr., (McComb): I wish to join our Chairman and Dr. Harrison in extending congratulations to Dr. Blackwelder. I think he has given us a splendid paper. It reflects a whole lot of serious study, effort and work. He has shown the definite need for diagnostic service in Mississippi in tuberculosis work. So long as the number of deaths reported is approximately less than one-half the number of cases reported there is definite need for more diagnostic work. It is calamitous almost that our number of deaths reported exceeded the number of new cases in 1932. That will correct itself as soon as some specific effort is made in case finding. You will have this statement made to you over and over again in your county where you are doing this work—"It seems to me that there is a lot of tuberculosis here. There's more here than anywhere else". That is not true. It is true that more cases are being found. I do not believe there is more tuberculosis in Pike or Forrest County than in any other county; the same is true of our state as compared with others, if the colored population is considered.

There are four means we have of finding cases of tuberculosis. The first is the reports from physicians of the active cases, that is the report referred to by Dr. Blackwelder as coming three hundred and something under the deaths reported. Second is our routine examination of school

children and others. Third is by the death certificates. The thing we can do to get greatest results is routine examination of known contacts, school children and all adults. If a physician has to wait until the patient comes in to him or calls him in for treatment of symptoms, it is almost too late to do anything for the control of tuberculosis. Our work can be based on the examination of known contacts and school children and real results obtained. We have at our diposal, as stated by Dr. Harrison, four means of diagnosis; namely, physical examination, including symptoms; roentgen ray examination; examination of sputum and the tuberculin test. If we are going to depend on physical examination entirely or on either of these four means for finding new cases, there is one we should choose that would mean a great deal in the control of tuberculosis, and that one is the tuberculin test. If you follow out the tuberculin test as outlined by Dr. Blackwelder, in future case finding, you will do more for the control of tuberculosis.

In the program as outlined by Dr. Blackwelder we do tuberculin test on contacts first, that is contacts of active cases, and as soon as the contacts showing positive tuberculin reactions have all been examined, or as nearly so as we possibly can, we are going into the schools and carry the tuberculin testing and the other follow-up work through all the school children. I have already started this work in the schools. We have almost completed examining our known contacts. We have over a thousand or twelve hundred school children tuberculin tested now and had three clinics in 1933 for examination of these contacts and school children. The good obtained from this work, I think, can be explained by pointing out the results of one clinic that was held in Pike County in December, 1933. The patients received in this clinic were contacts, children that had been tuberculin tested and showed positive tuberculin reactions, and patients referred by private physicians for diagnostic services. Of the 42 patients examined at this one clinic, there were twelve active cases found, five were childhood type of tuberculosis and seven pulmonary tuberculosis. What does that mean? It means that we have more childhood type of tuberculosis in our population than we realize and that is the group we must reach if we hope to control our tuberculosis problem. I heard Dr. Boswell state sometime ago that the Sanatorium was beginning to look like a state university, that the patients there ranged between the ages of fifteen and twenty-five. This indicates that they are coming down when they reach young adult life with active tuberculosis. This means, going back further, that they had childhood tuberculosis undetected. If their cases had been detected during the childhood stage and efforts made to control, I cannot help but believe that possibly seventy-five per cent or maybe more of those young adults could have been prevented from going down with active tuberculosis. So the real objective in a tuberculosis program is early diagnosis, a diagnosis of childhood type of tuberculosis, which means more absolute cures and that is what we must do if we hope to control it. All we can do with the moderately advanced and far advanced case is to slow them up. We can't cure them. Their cases are going to be a menace to society, but you can do something with the childhood type and those cases of pulmonary tuberculosis promptly diagnosed in the early stages.

I want again to congratulate Dr. Blackwelder and to impress upon you the necessity for organized effort in case finding in tuberculosis.

Dr. Wm. D. Hickerson, (Natchez): I might stress two or three points concerning this paper, the first being the fact that our work is not done after we have made diagnosis of tuberculosis. In days gone by, I have seen a number of cases that have gone rapidly from one member of a family to another until the whole family was wiped out. Then we should report the case to the health authorities so they can lend any assistance deemed necessary. The third is, I think, most important —to examine other members of the family because that is where we find most of the tuberculosis in contact with each case. The point I would like to stress is one angle of tuberculosis reaction. I have never seen it to fail where a family is not reluctant to admit other cases. I don't know a much better method in getting to your open case than going back ito the home to find your positive reaction and at least take a thorough history and at least examine specific cases.

In a recent study of tuberculosis which it was my privilege to take part in we found cases where there was no question of diagnosis, thirty to forty had never been diagnosed, most had never been to a physician, they did not consider themselves ill enough to be examined. Others have declined to be treated. They are the group of cases most of us all know from which our new cases arise. There were many splendid points in this paper and discussion and I enjoyed them all.

Dr. J. G. Gardner, (Columbia): I want to make an observation. This has been one of the most interesting programs of any of the sessions I have attended in a long time. I was just thinking what the other fellows are missing. I have attended many medical meetings and I just felt that I wanted to say this because of the most excellent program this morning. The doctors are missing something by not attending the Public Health Section of the State Association. I want to congrat-

ulate the chairman of this section on this most excellent program this morning. There are one or two things I want to say. I am naturally interested very much in children. There are many points to discuss. but I am not going to delay the program, except for one or two points. First, with reference to diagnosis and the method of finding new cases. Dr. Haney, in closing, said that the most important thing is the tuberculin test. Of course, I am not talking about contacts. We all know that when a child comes into contact with an open case of tuberculosis, it is well nigh impossible to avoid infection. We should remember that and drive it home. That is one of the most important phases of the work of the department health. The tuberculin test is very important, but the roentgen ray helps us a great deal. I remember very clearly a case I had sent to me from above Kosciusko several years ago. On examination, it was found that the patient had a foreign body in the throat. We worked with the child right along, but it only lived four days. It was only four months old. When it died, I had made up my mind that the child evidently had tuberculosis. I had of course gotten a clear history. There was no history of any contact whatever. The mother and father said there was no tuberculosis in the family. The mother did not look just exactly right to me. I sent her for a roentgenogram of her chest and found that she had miliary tuberculosis. The roentgenogram showed she had tuberculosis. The roentgen ray is undoubtedly a great aid in corroborating diagnosis. This shows the importance of contact and I wanted to stress this particular point. However, I want to bring this to the attention of you men. It seems that this morning the importance of the roentgen ray has been stressed at the expense of physical examination. I want to take issue in this way—that the physical examination of any patient, child or adult, in tuberculosis is very important. If you don't realize this, you are missing a lot. Why don't you go down to Dr. Boswell at Sanatorium and stay a week or two weeks and listen to the crepitant rales on deep inspiration. I am sure you can hear those rales in clear cut tuberculosis. Another thing, especially in children, is rectal temperature. You can't do much by mouth and no good at all by axilla, but have the temperature taken at ten, two and four or three and five in the afternoon regularly. If you rely on roentgen ray alone, your diagnosis may be wrong. A roentgenogram of the chest to detect tuberculosis must be a stereoscopic film. I am sure you have seen roentgenograms of the chest that have shown no evidence of tuberculosis where the diagnosis of tuberculosis has been made. I think we should pay more attention to physical examination and if making a diagnosis of tuberculosis on roentgen ray examination we ought to be sure of roentgen ray films, of technic and the correct interpretation of the picture.

Dr. F. M. Smith, (Vicksburg): For a number of years we have been extremely interested in tuberculosis. With care we have studied it as investigators and clinicians have given us food for thought, and much of what we had thought we had learned as irrefutable facts, we oftentimes perceive must be cast aside.

Personally we have fought it, and personally we have temporarily conquered it, yet at last we may be a victim of its insidious potentialities.

Our purpose in endeavoring to discuss this most practical and valuable paper is to further emphasize **one** special point brought out. That is, the health officer, or the health department, with adequate and efficient workers cannot hope to cope with this problem independently.

The necessity of deeply interesting the practicing physician and securing his full and hearty cooperation is imperative. Also the cooperating interest of the community in a degree is likewise imperative. We find the doctors with very, very few exceptions are commendably good and punctual in reporting most of the reportable communicable diseases, but with tuberculosis these same doctors report quite infrequently these cases or suspected cases.

My reaction is that in this problem of case-finding in tuberculosis the one essential point for health departments is to enlist and secure the abiding and cooperating interest of the practising physician to the extent that he will report all cases and suspected cases of tuberculosis to the health department. Then if the health department is fortunate enough to have a peculiarly fitted **public health nurse,** born and trained to the task, to personally contact the case and family and render a continuous **public health service** (not bedside care) acceptable to the magnanimous physician and the family having average appreciation, then our case finding problem will become less problematic.

Dr. Blackwelder, (closing): I wish to thank each of you for your free and generous discussion of this subject. The purpose of this paper is well expressed in Dr. Smith's discussion. If we can acquaint the general practitioners of the State of Mississippi with the problem that confronts us I believe something can be done about it. However, if we continue to ignore this field of work the increase in economic loss to society on account of the delayed diagnosis of tuberculosis is going to be laid heavily at our door.

SUMMARY OF REFRACTIVE CONDITIONS AND CAUSES OF BLINDNESS IN MISSISSIPPI*

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If the average passer-by is asked to define "blindness", he would probably have little difficulty in doing so to his complete understanding and satisfaction. But to those of us who deal constantly with varying degrees of defective vision, I do not know any definition more difficult to give. The more the term is contemplated, the more is one apt to become confused in deciding the exact point at which a person is or is not to be classed as blind.

It is evident blindness is a symptom only, and the word should not be used scientifically without some qualifying term descriptive of the condition on which it depends. If one has been so unfortunate as to have had both eyes removed, he could undoubtedly be classed as blind. However where the globes remain there occur gradations of vision from no light perception up to where an individual can go about unaided or engage in some form of manual labor. The point of blindness should necessarily occur somewhere along this line, its exact location depending upon the individual views of the observer.

As the condition is thus liable to so many interpretations, any definition of blindness finally adopted must be arbitrary. Naturally any arbitrary line or decision is open to criticism.

Where one deals largely with industrial workers, blindness could be regarded as that degree of defective vision that is no longer sufficient to gain a livelihood. It is evident such a person might be incapacitated industrially, but still able to find his way around with comparative safety. On the other hand in cases of severe pigmentary degeneration of the retina or advanced glaucoma, sufficient central vision might be preserved to do considerable industrial work, but the greatly restricted visual fields so handicap the individual that he would be unable to go around alone. So neither of these defects taken separately can be accepted as actual blindness.

From a purely medical point of view, blindness might be defined as that state where the visual power has been reduced to mere perception of light. This takes no account of the cause. To the ophthalmologist, the permanent loss of the patient's vision to this point bears the same relation as the loss of the patient's life to the internist or general surgeon. It shows his efforts have failed. Of course many of these eyes were doomed from the start. Treatment of any kind or amount would not have availed. Others might have been saved some degree of vision, provided proper treatment had been applied at the time. But lacking this from any cause, the vision became lost to the same degree as those who were hopeless from the start. This might be classed as the "tragedy group". A third class retains such potentialities of vision, that some restoration is still possible.

In an endeavor to learn why the vision has been so damaged, and to see what were the possibilities of some functional restoration, I have gone over the clinical records of 272 of my patients in whom there remained merely the power of light perception.

Table I. Causes of blindness in Mississippi. 272 cases.

Causes	Cases	
Cataract	45	
Intra-ocular inflammation	19	
Traumatic	91	
Glaucoma non-congestive	29	42
Glaucoma congestive	13	
Corneal ulceration	23	
Optic atrophy	14	
Retinal detachments	9	
Retinitis and chorio-retinitis	6	
Tumor formations	6	
Pigmentary degenerations	4	
Vascular derangements	4	
Congenital defects	5	

*Read before the Section on Eye, Ear, Nose and Throat at the Sixty-Seventh Annual Session of the Mississippi State Medical Association, Natchez, May 9, 1934.

Amblyopia hysterical	2
Sympathetic ophthalmia	1
Amblyopia congenital	1

They were first classified as men and women, and it was found that the incidence among men is over twice that among women, 182 to 90. The higher incidence of injury among men accounts for this.

They were then placed in the three groups: 1. Those evidently hopeless from the start. Of these there were 126, or 46 per cent. 2. Those that could probably have been helped at the time, but for some reason went on to visual destruction. These numbered 98, or 36 per cent. 3. Those that were still capable of some functional restoration. Unfortunately these were the smallest, being but 48, or 17 per cent.

The causes of such visual disturbance were then tabulated separately, and found to vary from the traumatic in 91 cases, down to the rarer conditions such as congenital amblyopia. In this two facts stand out that seem characteristic of Mississippi: First, the absence of trachoma. Not a single case of blindness was found due to this infection. Second, the great amount of blindness due to the various types of glaucoma, especially the chronic non-congestive. I see relatively more glaucoma here than any geographical area with which I am acquainted.

If this is due to some local peculiarity, that fact or cause is as yet unrecognized. I cannot but suspect that it is largely due to lack of appreciation on the part of both the public and its doctors that this highly destructive condition occurs among us with an alarming incidence, leaving over 15 per cent of our blind in its wake.

If this study has been of any practical value it is probably in presenting two facts: First, the graphic demonstration of the high percentage of glaucoma, and which I believe is sufficient to impress upon us that where the clinical condition is not clearly evident, every eye should be regarded as potentially glaucomatous until proven otherwise. As is shown, the chronic non-congestive type occurs more than twice as frequently as the congestive or acute type. Its complete freedom from pain or external evidence renders its approach especially insidious. Early diagnosis is the only answer, and to be effective this must be done before irreparable visual damage has occured.

The other and second point of importance, is that only 46 per cent, or less than half, of our ultimate blind seem hopeless from the start. Of the remainder, 36 per cent can probably be helped at the time sufficiently to retain some vision. If allowed to remain untreated this will go on to total loss, leaving only 14 per cent that may eventually be improved.

I have tabulated the results of three thousand consecutive refractions, which in their relative frequencies might be taken as a fair representation of these conditions as met in Mississippi.

Table II. Compilation of results of 3,000 reractions, Jackson, Mississippi, showing actual cases and percentages encountered.

Causes	No. of cases	Percentage
Myopic Astig.	115	3.8
Myopia	156	5.2
Hyperopic Astig.	163	5.4
Mixed Astig.	246	8.2
Comp. Myopic Astig.	331	11.3
Hyperopia	765	25.5
Presbyopia	1,052	35.7
Compound Hyperopic Astigmatism	1,371	45.7
Esophoria	471	15.7
Hyperphoria	664	22.1
Exophoria	1,089	36.3

As our foreign population is small, the great number of myopic conditions so characteristic of Central Europe is absent. Our prevailing eye seems to be of the under developed, or hyperopic type. Simple myopic astigmatism forms the smallest group, being found in but 115 cases, or 3.8 per cent. Simple myopia occurs in slightly larger amount, being present in 156 cases, or 5.2 per cent. Hyperopic astigmatism was unexpectedly found to be almost as low as myopia, 163 cases or 5.4 per cent. The incidence of mixed astigmatism found in 246 cases, or 8.2 per cent, proved surprisingly high. This was in turn slightly exceeded by compound myo-

pic astigmatism in 331 cases, or 11.3 per cent.

There then occurs an abrupt upward deviation in the curve of incidence to simple hyperopia, which was noted in 765 cases, or 25.5 per cent. Most of this hyperopia was found in conjunction with presbyopia, and its rate is perhaps the one most open to question as to accuracy. In this combination of hyperopia with presbyopia, the refraction is usually done subjectively, and a plain sphere is given when it improves distant vision, when no astigmatic aberration is domonstrable with the ophthalmometer, and no evident improvement can be made with the addition of cylinders. If subjected to the usual retinoscopy, the results would undoubtedly vary somewhat from the figures quoted, but due to the lack of time or unsuitability to mydriasis, this was omitted. No entirely subjective refraction can be regarded as accurate, even though the patient may wear the glass with apparent comfort, and his resulting vision manages to be within the usual standards of normal.

The type of visual disturbance occuring next in frequency was presbyopia, found either alone or in combination with other refractive errors in 1052 cases, or 35.7 per cent. The classification "presbyopia" is rather arbitrary, and in this study I have regarded a patient as presbyopic when having attained at least the middle forties, his near vision became truoblesome and was distinctly improved by the addition of plus spheres. This definition excluded cases of defective accomodation occuring in the young following lesions of the third nerve. As presbyopes are usually corrected subjectively, the results are liable to vary from strict accuracy.

The highest incidence of visual disturbance, compound hyperopic astigmatism, was found in 1371 cases or 45.7 per cent. These were practically all examined by retinoscopy, which if properly done is an exact procedure. If the results at the test chart do not closely compare with those attained by retinoscopy, the retinoscopy was improperly done. It is in handling these compound hyperopes that unqualified examiners go fartherest afield, and some of their results are indeed bizarre.

It is also found that asthenopia, that comprehensive term embracing the general symptoms of "eye-strain", is most prominent in this large group. Their vision may be perfect for both near and far, according to our arbitrary standards,—but always at the expense of effort.

It is also noted that pronounced cases of eye discomfort often occur among those with relatively small errors of refraction. Their visual power is so acute, it is constantly and perhaps intensively employed. When the error is large, they simply do not see, and as they do not attempt to, their subjective symptoms are relatively slight.

No refraction can be regarded as complete, without an investigation of the muscle balances for both near and far. In this series of 3000 cases, orthophoria, or entire absence of demonstrable deviation was found only 776 times, or in 25.5 per cent. In 2224 cases some type of phoria could be demonstrated and measured. This does not include cases of constant deviation, actual strabismus.

In the tabulation, esophoria was found in 471 cases, or 15.7 per cent. The opposite tendency, exophoria, was much more prevalent, as it occurred in 1089 cases, or 36.3 per cent. A slight exophoria occurs so constantly in near vision without discomfort, that any amount up to four degrees can be regarded as within the limits of normal.

Considering their great frequency, the actual number of these lateral deviations requiring prismatic correction, is quite small. For a few with high degrees, comfort can be attained by the addition of prisms, but this is seldom necessary. In a few instances of intractible asthenopia due to very high degrees of lateral phorias, I have used the Jameson recession of the overacting muscle, or the O'Conner "cinch" shortening of the opposite, with gratifying relief of symptoms.

Along with perhaps the majority, I have at times prescribed muscle exercises for troublesome lateral phorias, but I cannot say

I have ever seen any positive results from their use. Whenever alleviation of symptoms follow, it seemed due to suggestion rather than actual improvement in ocular coordination. It is evident that the treatment of various refractive abnormalities, by wierd rituals and exercises of the extrinsic muscles cannot be followed by any changes in ocular curvature, or alterations in refractive indices. However that idea has a popular appeal, and is providing a happy hunting-ground where meet the gullible with the charlatan.

In the vertical deviations, quite a different approach and treatment is required. As our ability is so limited, to comfortably fuse dissimilar images arising from this absence of vertical parallism, surprisingly small amounts can produce surprisingly severe symptoms. In this series, either right or left hyperphoria was present in 664 cases, or 22.1 per cent. This was unexpectedly large.

Vertical deviations of even small amounts such as ½ degree can often be corrected to advantage, and the relief thus afforded asthenopic symptoms that cannot be alleviated by ordinary lenses is quite gratifying. I have never attempted any exercise or muscle alterations in any case of these vertical phorias.

Owing to the prevalence of these types of muscle imbalances, it is evident their study is indicated in all persisting cases of eyestrain that defy ordinary measures. Even where the deviation is not clearly evident on first examination, the Marlow occlusion test for 48 hours will usually bring it into prominence, and allow its total amount to be accurately determined.

In an inspection of the chart, the heights of the ordinates give the actual numbers of the cases observed, and alongside is also noted the percentage. It is evident the total of the latter is more than 100 per cent. This is due to the fact that many patients present several coincident abnormalities, each of which is there noted separately. For instance, it is quite common to find in a single patient, simple hyperopia in one eye, and compound-hyperopic astigmatism in the other: to have at the same time, some esophoria for distance, with exophoria for near, and a small amount of hyperphoria for each. In the final tabulation these five conditions would be noted separately, thus augmenting the percentage stated.

DISCUSSION

Dr. C. C. Buchanan (Hattiesburg): Dr. Wilde brought out one point at the beginning that has been brought to my attention a number of times in court, and that is when is a patient blind? Living in an industrial community where we have numerous accidents and lots of damage suit lawyers, this question is brought up frequently, and I was glad to hear him say what he did about it. As long as a person has vision in the eye and can get around good, even though it is not of much service for close work, I do not consider that patient blind. I was glad to see his percentages. He has brought up something I am certainly going to check when I go back home. I did not check it before because I did not know just what he expected to bring up, but this question of refraction is most interesting to me. As he said that is the bread and butter part of the work and a question in which I am very much interested. I have not anything to add to his paper. I would like to ask him one question—he states that most of his refractions are done under cycloplegics as far as he can, I would like to know what he considers or how he determines what the border line is?

Dr. K. W. Constantine (Birmingham): To discuss a paper of this kind intelligently, I would say the discussor should have done something along this line himself, because the percentages are a little surprising to me. I do not have any doubt but they are perfectly correct. I would imagine in a refractive field that the esophorias would exceed the exophorias. He probably has his patients relax better than I do. I have not used the occluding test for refraction, and I find that in a good many of these hyperphorias, you can get one or two degrees by tilting the head, so it is important I think to get the head straight in testing for hyperphoria.

I quite agree with the doctor that it is very comforting to correct these hyperphorias, even a small amount, with prisms. I disagree with him entirely about the exercises. I think instead of the optician exploiting the field that we have neglected it. Some of the best results I get are due to muscle exercises. We do not usually give them exercises for abduction but do for adduction. I do not think we need a great deal of abduction but we certainly need adduction, and if my patients give a history of fatigue and especially getting

sleepy quickly, and you refract them and find very little refractive error, practically all of these cases are low in adduction. I do not expect them as a rule to be over 18 to 20 degrees. If I find the patient's adduction under 8 or 10 degrees I put them on exercises at home with written instructions and order for them a 4, 10 and 20 degrees prism. By subtracting and adding these prisms they can get 4, 6, 10, 14, 16, 20, 24, 26, 30 and 34 degrees. Then with base out over either eye they exercise two or three times a day by looking at a lighted candle or some small object. It is not original with me of course. I have had this thing talked to me and neglected it for years, and then I went back to it and I have had more satisfaction out of it than anything I do in refraction.

I am very much interested in these statistics because I have been trying to do something at our blind school at Talladega. We have 275 or 300 blind children, "so-called blind," and added to that number there may be 75 with congenital cataracts. There has been little inspection of these children. Some of them have been there one to six years with very little eye inspection, and I feel that in Alabama we need to get people interested in these congenital cataract cases. As you know we can not do much in the way of getting useful vision unless you get them early, but if you get them inside of the first five years you can get useful vision. That has been sadly neglected in our state and some of the children in the blind school can see well enough but they put blinds on them and teach them to read Braille, but they were not inspected when they came in and they stay there year in and year out and I certainly hope that condition does not exist in Mississippi.

Dr. Wilde (Closing): In reply to Dr. Buchanan's question as to the upper age limit of retinoscopy under cycloplegia, I formerly seldom did them over the age of forty. Lately that limit has been gradually raised, and I sometimes do them as late as fifty in difficult cases. However, in these upper age groups, the retinoscopy is prefaced by a very careful examination, and certain requirements must be met. 1. The tension must be within normal limits. 2. The eye must be free of pathology that might be conducive to an increase of tension. 3. The anterior chamber must be of normal depth. If all these are present you can do a retinoscopy irrespective of age, providing that the mydriatic effects are immediately neutralized with a quick acting miotic. If these evidences of normal intraocular condition are not present, it is better to confine one's efforts to the old "trail and error" method of subjective refraction.

The cycloplegic I habitually employ is 2 per cent homatropine. The addition of cocaine is a disadvantage as it diminishes the winking reflex and causes varying degrees of corneal epithelial clouding. Any solution developes a fungus growth which can irritate the conjunctiva. By making but one half ounce at a time, and adding a few drops of 1:2000 mercury oxycyanide solution, this foreign substance is kept down.

The apparent improvement in vision after muscle exercises, seems due more to suggestion than actual change. When an exact retinoscopy is done and the pupillary area only is refracted under good cycloplegia, it is an exact procedure. It is a problem in the physics of light that is worked out mathematically. If your later results at the trial case do not correspond with your retinoscopy, then the retinoscopy was defective.

Until we have done a careful retinoscopy and thus determined the exact refractive condition of the eye, subsequent retinoscopies following these various muscle tests, will show whether actual refractive changes have been produced. Until this is really demonstrated, we are not justified in accepting the variation in the patients comfort as evidence of an actual variation in his refractive condition.

SQUINT AND ITS TREATMENT*

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HISTORY

So disfiguring a defect as strabismus did not escape the attention of the very earliest writers in medicine. They didn't give any treatment for it, because it was considered a permanent defect—an affliction or punishment sent by a displeased deity.

Hippocrates noted the paralytic type in certain nervous conditions, he also noticed the noncomitant type, and considered that it was due to epilepsy, or that it was an hereditary trait, observing that a parent with a cross eye often had a cross-eyed child. Galen was the first to give us a description of the ocular muscles.

Paulus Aegineta, a noted Greek medical writer (seventh century), advised the use of a mask placed over the face, with small perforations over each eye. He had an idea that this might, in some way, induce the patient to look through the small apertures and thus straighten his eyes. Ambrose Paré (1509 A. D.) took up

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Aegineta's idea and had masks made of horn with central perforations.

Paré attributed squint to defective position of the child in the cradle, or to imitation of the nurse or companion; ideas which are still held by the laity.

Antoine Maitre-January, 1707, states that some authors claim that "mal-position of the crystalline lens" is the cause of squint, while others maintain as causes, imaginary vices of the visual spirits. Some claim that it is due to contraction, or "spasm of the ocular muscles", so we see our muscular theory began at least as early as 1707. This same author discourses on refraction and mentions the fact that objects look larger to patients who squint. (Accommodation theory of Donders).

From 1727 to 1737, appeared the bombastic John Taylor, an itinerant oculist, of Norwich, England, who first introduced his operation in 1727. He traveled through Europe "curing" squint by cutting the conjunctiva at the inner canthus, occluding the good eye to cause the use of the squinting one.

An event of historical importance in the treatment of squint was the recommendation of Buffon, 1743, to cover the good eye and force the use of the squinting one, and thus improve its vision and aid in the cure of the squint. He also recommended the use of glasses in certain conditions, thus might he be said to have been the first to inaugurate the two most beneficial and most frequently used non-surgical aids in the treatment of squint, i. e., padding the good eye and bringing up the acuity of vision in the bad one, and the use of glasses.

Tenon, in 1806, gave us the most comprehensive anatomy of the orbit, and in particular the description of the capsule which bears his name, and this information without doubt has had much to do with the subsequent treatment of squint.

In 1827 Anthony White suggested the cure of squint by means of a tenotomy. The defect of tenotomies caused another operation to be developed, that is, strengthening of the weaker muscle. This was first undertaken by Dieffenbach in 1842.

The more accurate description of an advancement operation was by A. von Graefe in 1857. This was his famous "Faden operation".

The same year G. Critchett, of London, described his three-stitch operation, of which Beard has said, "might be called the parent of most modern advancement operations". In 1897 Landolt made some improvements on Critchett's advancement, and his operation, with slight modifications, is extensively practiced at present.

From this date up to the present time there have been devised many ingenious methods of shortening the weaker muscle and making it cope with the overacting one, and this has been done by muscular advancements (Critchett, Landolt, Weber, de Wecker, Prince, Verhoeff, Worth, et al); capsular advancements (Knapp, de Wecker, Parinaud, Fox); resections (Vieusse, Schweigger, Prince, Reese) reefs, (Savage, Valk, B. Harmon, et al) and by tucks (Todd, Bishop, Bruns, Clark, Briggs, et al), but in one and all of these was the element of inexactness in the preoperative measurement of the squint, and want of proper gauging of the operations, and hence variance of the end results obtained. Then to obtain results there was the partial tenotomy and advancement—a combination of operations both of which were inaccurate and left just as much to be guessed as heretofore.

Donders established a definite relationship between squint and hypermetropia. Then later Worth presented the "fusion theory".

At the present date the whole profession is indebted to Dr. Robert G. Reese and Dr. P. Chalmers Jameson for their great work in surgery of the eye muscles.

Dr. Reese shortens the weaker muscle and reattaches it to the stump. His resection operation is the best known in America. He described the operation in the "New York Medical Journal", January 1912.

Dr. P. Chalmers Jameson, of Brooklyn introduced a definite procedure of recession, and published his operative procedure in the "Archives of Ophthalmology", 1922.

The last person who appears in the history of squint is Dr. Frank H. White of New York, who was an associate of Dr. Alexander Duane, also of New York. Dr. White has, I believe, a better knowledge of the ocular muscles than any other man in the world today.

ETIOLOGY OF SQUINT

Probably no one subject in ophthalmology has been discussed more than the etiology of squint. Hence it is not strange that so very many things have been mentioned as etiological factors, and just as numerous have been the remedies for its relief.

The four outstanding theories as to the cause of squint which have dominated the treatment of that affection are the following:

1. *Muscular*:

The advocates of this theory maintain that concomitant squint is due to a too strong overacting rectus muscle, that the muscle is either too large and strong as compared with its antagonist, or that on account of its peculiar advantageous insertion, its shortness, or over development, or shape of the orbit, it acts in excess of its antagonist and causes the eye to turn *either in or out.*

2. *Accommodation*:

Donders in the middle of the 19th century firmly established the fact that there was a close relation between convergent squint and excessive hypermetropia or hypermetropic astigmatism. He, at the same time, advocated the cure of squint by means of the correction of hypermetropia and astigmatism with glasses.

3. *Fusion*:

Before studying this theory, it may be well to make a few remarks with reference to the binocular act of vision. *The essentials for binocular vision are two healthy maculae in two eyes whose motor functions are in perfect order, presided over by a healthy cerebrum.* The first essential to binocular vision is predominating maculae, i.e., the macula of each eye must be so developed as to demand that the image shall fall on the macula. In other words, the acuteness of vision at the macula should be several times greater than at any other part of the retina. Where this is true the retinal reflex from the macula will send in a sufficiently strong stimulus to the external muscles of the eye to force that eye into such a position that the image of the object of attention will fall on the macula, in order to secure the most perfect picture possible. The second essential to binocular vision is a normal-functioning set of ocular muscles. This implies that they should be of proper comparative strength and under proper healthy nervous control. The third and last essential is a properly functioning nerve center, whose duty it is to receive these retinal images, and convert them into a single mental picture, an exceedingly complex and little understood function, but none the less interesting on account of its intricacy.

In the human being there are two retinae, so placed as to have corresponding parts, one with the other. The nasal half of the right retina corresponds with the temple half of the left retina, and vice versa. The macula of one eye corresponds with the macula of the other. Fusion demands such adjustment of the macula that the image of an object seen will fall on the macula of each eye. These images in turn, are sent to the cortical center of vision in the brain and stimulate the same set of cells and the two images on the two retinae make out one cortical stimulus, and one impression and only one object is seen. The uniting of the two retinal images into one mental image is called *fusion.* Any hindrance or want of proper action in this mental act is called interference with *fusion,* and the power or faculty of converting these two retinal images into one mental picture is called the fusion faculty. This faculty, if there be such, is innate in man. The so-called *fusion theory* of squint ascribed squint to a want of proper development of this faculty.

4. *Nervous*:

This is divided into two general heads.

(a) Pathologic nervous lesions. (b) Functional nervous manifestations.

(a) Pathologic:

Group 1. Cases due to loss of foveal guide.

Group 2. Cases due to positive scotoma.

(b) Functional Nervous Manifestations:

1. Excessive innervation of convergence, or lack of innervation of convergence.

2. Excessive innervation of divergence, or lack of innervation of divergence.

3. Paresis or spasm of one of the extra-ocular muscles.

4. A combination of any two or three of these conditions.

Contributing causes of squint:

1. Hypermetropia
2. Heterophoria
3. Anismetropia
4. Amblyopia

5. Structure and shape of the orbit and eye ball.
6. Acute illnesses
7. Injury at birth
8. Heredity
9. Miscellaneous causes:
   (a) Fright
   (b) Irritating effect of intestinal parasites
   (c) Malnutrition
   (d) General nervousness associated with one or more of the already mentioned causes of squint.

TYPES OF SQUINT

1. Those due to known cause. Paralytic.
2. Those due to unknown cause. Concomitant.

Paralytic strabismus is a pathological condition and is due to a lesion of the nerve supplying the muscle. The relationship of the visual axes to each other changes with every movement of the eye in the direction of the action of the paralyzed muscle.

Signs and symptoms:

(a) Limitation of movement. That is, the inability or diminished ability to turn the eye in the direction of the paralyzed muscle. Tested for by fixing the patient's head and having him follow the movement of your finger. The primary deviation is less than the second deviation.

(b) Diplopia.
1. Homonymous. 2. Heteronymous or crossed diplopia.

(c) False orientation.

(d) Position of the head.
The head is held in the direction of the action of the paralyzed muscle.

(e) Vertigo.

Treatment:

1. Treat underlying cause for at least one year.
2. Glasses.
3. Operation after it all fails.

Concomitant Squint:

In *concomitant strabismus*, the visual axes though abnormally directed retain their abnormal relation to each other in all movements of the eyes. The secondary deviation is equal to the primary deviation. The squint may be constant or it may be periodic.

(a) No diplopia.
(b) Eccentric fixation.
(c) Defective vision in squinting eye except in alternating.
(d) Always commences in childhood.

Types:

1. Unilateral.
2. Alternating.

TREATMENT OF SQUINT

1. History:
(a) Age of onset.
(b) Mode of onset.
(c) Any illness or preceding evidence of squint.
2. Character of Squint:
(a) Convergent.
(b) Divergent.
(c) Unilateral.
(d) Alternating.
3. Do the cover test to see if the patient has a real or an apparent squint.
4. Measure the angle of the squint, using the prisms whenever possible, and if they can not be used, then use the perimeter.
5. Test the binocular vision using the Worth's amblyoscope.
6. Refraction:

(a) If the patient is under eight years of age, prescribe a one per cent (1 per cent) atrophine ointment and direct the patient's mother to use it three times a day for one week.

(b) If the patient is over eight year of age, prescribe a one per cent (1 per cent) atropine of atropine sulphate to be used as drops in each eye three times a day for three days.

(c) Retinoscopy:

1. If the patient is too small to use the reading chart, then order for him the atropine correction, adding—1.00 sphere to it, if he is hypermetropic.
2. If he is able to use the reading chart, then order for him the correction which he reads best with adding a—0.50 sphere to it and have him wear the correcting lenses all of the time.
3. If the patient is myopic, order the full atropine correction for him, of course adding—1.00 sphere to it.

4. Order glasses for the patient if he is one year or more old.
5. Test the vision of each eye using the charts if the patient is old enough, and if he is not, use the ivory balls.
7. Occlusion of the fixing eye:
   If the patient has vision of 6/36 or below, put on a gauze pad over the good eye, then put adhesive around the pad and then a bandage over this. Keep this pad on for six and one-half days out of seven for three weeks. At the end of this time have the patient come back and test his vision.

Repeat this test for three weeks more then examine him again. If the test is of any benefit a great improvement will be had in three weeks and if no further improvement occurs within two months, the bandaging is useless.

8. Instillation of atropine in the fixing eye:

In cases which have a visual acuity of 6/24 or better, atropine sulphate 1 per cent solution is used. One drop is instilled in the fixing eye, once per day each morning, having the child wear his glasses continuously. Use the atropine for several months if necessary to bring the vision back to normal or near normal in the squinting eye. At the end of this time stop the atropine for two or three weeks and see what will happen. Ordinarily the child will then start to squint with the old squinting eye and fixing with the good eye. If so, order atropine for the fixing eye once per day for the first seven days out of each month.

When giving the above directions to the mother, aways write them out for her.

When the child reaches the age of seven years or more, not much improvement can occur. However, this treatment should always be tried on the older patient.

After beginning the atropine treatment be sure to see the patient once each month and thereafter, every one to two months according to the nature of the case. Continue the atropine treatment until the vision in the squinting eye is equal to the vision in the fixing eye.

10. Train the fusion sense:
    If the case is seen early enough train the fusion sense with the amblyoscope. The best age at which to do this is between the years of three and five. After six years of age it is impossible.
    Training exercises:
    (a) First degree binocular vision—Bird in the cage.
    (b) Second degree binocular vision—Clock. Pump.
    (c) Third degree binocular vision—Bucket.
    Usually six lessons of one-half hour each are enough, if one is using the Worth's amblyoscope, and if it is possible let the mother have the amblyoscope to use for a lesson every morning.
    If all the above treatment fails, then an operation is the only recourse.
11. Operations:
    The types of operations which are most commonly used are three in number. They shall be discussed in this heading only in the briefest form, the full technic being taken up later.
    (a) Muscle Recession:
    Dr. Jameson has revived this operation and has placed it on a basis, whereby the actual millimeters of correction can be calculated before the operation is performed. The basis of this operation is to relax the overacting muscle. This is accomplished by detaching the overacting muscle from its insertion and recessing it the required number of millimeters, then reattaching it to the globe.
    (b) Muscle Resection:
    Dr. Reese has the best known operation in America and it has as its object advancement of the weaker muscle. This is done by resecting the required number of millimeters off of the muscle and reattaching it to the stump.
    (c) Muscle tenotomy, or muscle myectomy, has as its object a weakening of the over-acting associated muscle. It is used principally on the obliques.

CONCLUSION

The primary object of this paper is to try to bring forth the facts, that all types of squint can be remedied and most of them cured and secondarily, that if the patient is brought to the doctor before the age of six years, not only can he be cured, but binocular single vision can be obtained with preservation of normal vision in the squinting eye. Therefore, always bear in

mind that one should never instruct a patient to wait until later in life, because as a rule he will not "outgrow" it and will have a blind or practically blind, squinting eye.

OPERATIONS

1. Jameson Recession:

   A conjunctival incision is made about seven millimeters long following the curve of the semilunar fold, the center corresponding to the caruncle. The ends of this incision are prolonged toward the cornea and in the direction of the fornices above and below. The flap is undermined to its base and turned over toward the cornea.

   The muscle is now undermined, completely separated from the globe, and its capsular continuity severed above and below by incisions carried back beyond the equator. A tenotomy hook is inserted to facilitate clean dissection, and Jameson forceps placed behind it, to grasp the muscle. The hook is withdrawn and the muscle severed from its insertion in the usual way.

   It is an advantage to have the operative field completely exposed and ample room to manipulate the needle. The sclera now exposed should be sponged and cleaned of blood particles and the outlying muscle fibers, if any, freely severed. The distance from the muscle insertion which the operator desires to recede the muscle end is now measured in millimeters and the point noted on the sclera. The remaining steps in the operation are very simple.

   Three single-armed sutures are provided. The first, the central one, is introduced from without the conjunctival lip nearest the caruncle, then perforates the outer surface of the muscle end just below the center behind the forceps. At this point, to make for the utmost safety in the bite of the suture, the needle is put through the muscle from the under side above its first perforation (that is just above the center of the muscle) and brought out on the upper side of the muscle, the thread being looped around the thread of the first perforation. This simple suture is easily seen on the diagram. The sutures are now continued right on through the sclera and out and finally through the lip of the conjunctiva nearest the cornea. The two remaining sutures, about 3 millimeters above and below the center, are carried directly through the conjunctival lip, muscle and sclera and conjunctival lip nearest the cornea.

   The sutures are now carefully separated, the blood debris cleared away, the muscle approximated to its new scleral attachment.

   The tying of the sutures firmly holds the muscle to its new scleral position and at the same time closes the conjunctival opening.

   The central suture resolves itself into a surgical knot and tightly holds a bundle of muscle in firm apposition to the sclera. If the conjunctival wound gaps between the sutures, it is wise to supplement surface conjunctival sutures.

2. Reese Resection:

   In this operation the muscle is shortened and attached to its original attachment and is the best known resection operation in America today. This was described by Dr. Robert G. Reese in the "New York Medical Journal" January 1912, and the description given below is in his own words.

   ' "For the external and internal rectus make a vertical incision in the conjunctiva 6 millimeters from the corneoscleral margin, commencing at the head of the upper corneal border, and extending to the horizontal plane of the lower border.

   ' "At the upper and lower limits of the incision just made, grasp the tissue anterior to the sclera with forceps and open with scissors, directing their point away from the muscle. This procedure allows the passage of the strabismus hook under the entire muscle.

   ' "When the muscle is held on the hook, dissect all the conjunctival and sub-conjunctical tissue back to the canthus, exposing the bare muscle completely.

'"The lateral invaginations of Tenon's capsule, which are attached to the tendon's of the ocular muscles, must be dissected free and clear.

'"One blade of the resection forceps is then inserted beneath the muscle at a right angle to its course, so that the grooves on blade lie directly over the middle fibers of the muscle. Clamp the forceps to the last notch, and do not let its grasp include anything but muscle.

'"Sever the muscle 2 millimeters from its scleral attachment, leaving a stump, so that the resected end can be sewed to its original insertion. Free the body of the muscle from any scleral adhesions. Three sutures are necessary.

'"Put the sutures in commencing with the middle, which is No. 3 braided silk with a needle on each end. Pass one needle through the scleral surface of the muscle posterior to the blade of the forceps and 4 millimeters back of the point of resection, and 1 millimeter to the side of the groove on the forceps; then pass the other needle the same way, but to the other side of the groove making a loop with the sutures on the scleral surface of the muscle. As the needles pierce the muscle, let them include the dissected edge of the subconjunctival and conjunctival tissues.

'"The two wing sutures are No. 5 silk with a single needle passed first through the upper and lower part of the dissected conjunctiva and episcleral tissues including the superior and inferior border of the muscle and slightly posterior to the loop made by the middle stuture.

'"Cut the muscle anterior to the sutures, leaving at least 2 millimeters in front of the loop. Insert the two needles attached to the middle suture 2 millimeters apart, through the center, and the two other needles through the upper and lower edges of the scleral stump. These needles should include the conjunctiva as they pass from behind forward.

'"Tie the middle suture first in a loop, and do not use a surgeon's knot, as it will not pull up well. The lateral sutures are next tied. No supplementary conjunctival sutures are necessary."'

3. Tenotomy:

Not rarely in tropias, particularly esotropia, a sudden upward deviation of the squinting eye takes place when the eye is adducted. This is probably the result of overaction of the inferior oblique, consequent upon a paresis of the superior rectus muscle usually of the opposite eye. In this condition tenotomy of the inferior oblique is indicated, sometimes preliminary to operating upon the lateral muscles. The operation may also be performed to correct the diplopia resulting from paresis of the superior rectus muscle, either acquired or congenital. An incision about 1 centimeter long is made through the skin and orbital septum over the inferior orbital margin, in a position corresponding to the point of origin of the muscle on the floor of the orbit. A strabismus hook is then inserted, the muscle is engaged and is drawn toward the incision, where it is severed by a few snips of the scissors.

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DISCUSSION

Dr. Wm. B. Clark, (New Orleans): Mr. Chairman and members of the Section; I want to thank the Chairman and Dr. Gray for the privilege of discussing this splendid review of this interesting subject. I say "interesting" because every doctor, no matter to what line of practice he limits himself, should be interested in any case of squint that he may come in contact with. If this paper

does nothing more than to serve as a reminder that something can be done for "crossed eyes" and that the child should not be left to outgrow the defect, which it will not do, it has been worthwhile.

It is my belief that this line of endeavor holds a much brighter future for the young ophthalmologist than eye surgery in any of its ramifications. While I do not agree with all the minor details of the management of these cases as outlined by Dr. Gray, our general principles are the same. And it is my impression that these principles are more or less accepted and followed by most oculists who are sufficiently interested in squint to write about it.

I want to repeat what to me was the most important sentence in the entire paper, i. e.; "The essentials for binocular vision are two healthy maculae in two eyes whose motor function are in perfect order, presided over by a healthy cerebrum". Keeping these facts, for I am convinced that they are facts, ever before us, we have the foundation on which we are to build our corrective procedures.

In our work we lean considerably to the conservative line of treatment, beginning with a very careful refraction under atropine and prescribing as much of the correction as we think the patient will comfortably wear. We also use the monocular cover and in the less severe cases, atropine. The majority of the cases with a squint of less than 25 to 30 degrees will respond to this line of treatment if you get the cooperation of the patient and his parents in carrying out the instructions.

I believe as soon as visual acuity has been developed in the squinting eye sufficiently to begin, fusion training should be begun. There are several instruments recommended for this procedure, Worth's amblyoscope, Maddox's cherioscope, and the ordinary stereoscope, used with and without prisms. With the stereoscope you can use either the Wells, Keystone, or Sattler charts either separately or together. I think these observations have been borne out by Gifford and Guibor in their clinic for Orthopic Training at Northwestern University, referring you to Guibor's report in the March issue of the Archives of Ophthalmology.

How long to try conservative means depends on the individual case as do so many things in medicine, I do not feel that we should lay down an arbitrary rule and say operate at the end of three, six, or twelve months, but study each case as an individual. But when the squint is greater than 25 to 30 degrees or when you see that the patient is not responding to conservative treatment an operation should be resorted to. I favor the Reese Resection and the Jameson Recession described by Dr. Gray, but there are notably others used by good men with equally good results, i. e.; the tuck, the advancement, and the cinch operations with their various modifications. It is my belief that it does not matter what method you follow in operating on these cases as long as you pick out the one you like, stick to it and develop your technique to as near perfect as possible.

We should not become discouraged when one operation does not completely correct the defect. Several may be necessary before the desired results are obtained. And when it is all over, if you have not helped the patient develop a useful eye or binocular vision, the cosmetic result usually improves the patient's mental attitude sufficiently to justify the procedure.

Finally, we should always bear in mind that the best results are obtained by both or either line of treatment the younger the patient is when it is first seen and treatment begun. But recent observers have disproven the theory that nothing can be done after the patient passes the age of six and that good results have been reported in cases up to twenty years.

Dr. Ed. C. Simonton, (Shreveport): I would like to stress the importance of early examination of these cases. All cases can be helped. Any child or infant who "squints" even if the squint is slight and occasional should be examined immediately by a competent oculist; especially is this true if he squints for many minutes at a time or if one eye converges while the other steadily fixes some object or if the deviation is always manifested by the same eye.

Some infants squint occasionally because the fusion sense is not fully developed. This squint ceases when the fusion center has developed. This is why the belief in spontaneous cure of squint is rather widespread among the general public.

The public should be instructed on this subject. Talks sponsored by medical societies, should be given over the radio and to parent teachers associations.

Many parents think that the child will outgrow the condition and when the oculist finally sees the child much valuable time has been lost and the chances of a cure are much less. If we do see the case early, the prognosis for binocular single vision and preservation of vision in the squinting eye is good. So don't wait to see if the child will outgrow the squint. The squinting eye may become blind from lack of use and the younger the child the more likely is this to happen. The patient's whole future career may be impaired by having one eye that is blind and unsightly. If seen early almost any case of squint can be cured by careful refraction and the proper fitting of glasses.

Dr. N. T. Simmonds, (Alexandria): Mr. Chairman, Members of the Louisiana State Medical Society:

There are two practical points which should be mentioned in discussing recession operations. One is the fact that only a most superficial bite of scleral or even episcleral fibres is necessary to hold the recessed tendon to the new scleral attachment. The other applies to those operations in which absorbable suture material is used. In such cases, the Jameson Needle will greatly facilitate completion of the scleral suture without tearing the superficial scleral fibres.

In regard to the time of operation, my personal opinion is that surgery is indicated if the eyes are not straight or greatly improved after six months or a year's treatment at the most. The all important point is that the sooner the eyes are straightened, the better the chances of developing normal vision and fusion. The practice of advising parents that the child will "grow out" of his squint, or to wait until he is seven, twelve, sixteen, etc. years of age before operation, is to be emphatically condemned.

PNEUMO-PERITONEUM CONCURRENT WITH PARACENTESIS

ITS USE IN PAPILLO-CYST ADENOMATA OF THE OVARY*

L. A. FORTIER, M. D.
AND
T. T. GATELY, M. D.
NEW ORLEANS

Artificial pneumo-peritoneum, or the injection of air into the peritoneal cavity for diagnostic purposes, which formerly was used extensively, has fallen into comparative disuse largely because of certain unfortunate complications such as perforation of intestines or peritonitis. We and our confreres are fully aware of these dangers as well as the danger of the spread of malignancy from puncturing malignant cysts.

But there are certain cases in which paracentesis for the relief of ascites is imperative and it is in these cases that replacement of the ascitic fluid with air, and subsequent radiographs in various positions will afford a welcome amount of assistance in their diagnosis and management.

The technic is exceedingly simple. Puncture is done with an ordinary trochar and cannula. On removal of the trochar a piece of rubber tubing is attached to the cannula. A large aspirating syringe is used to withdraw the fluid and as each syringe full is removed it is replaced with a syringe of air, the rubber tube being clamped in the interval with a forceps. The fluid should be removed as completely as possible and this is important. The cannula is then removed and radiographs made in many positions: right and left lateral views with the patient in prone and supine positions; antero-posterior or postero-anterior with patient in Trendelenburg and sitting poistions; and antero-posterior with patient lying on right and left side. These positions will give you a survey of practically the entire peritoneal wall.

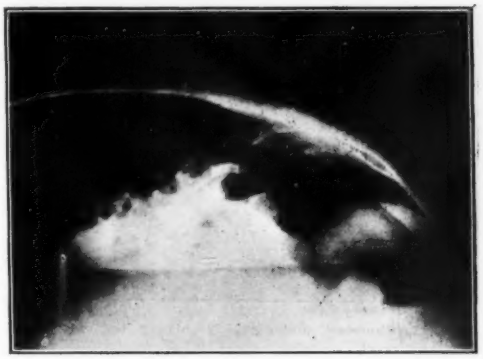

Fig. 1. Showing adhesions to the anterior abdominal wall and a large cyst in the lower abdomen.

By means of these views one is able to demonstrate not only the original tumor mass but also to determine whether or not metastatic peritoneal implants are present. This one finding is of enormous value in the management of the case, as certainly no radical surgery should be attempted in the presence of metastases. The metastatic implants will appear as rounded or irregularly rounded masses of varying size and may be clearly seen on the original films in contrast to the injected air. They may be solitary or in clusters. In two cases in which the larger cyst was punctured numerous smaller cysts within the larger cyst were demonstrated. Both of these cysts were very large and were adherent to the anterior abdominal wall below the umbilicus. No harmful result was noted after the puncture.

In one case a large multilocular cyst was seen and there were no apparent metastases. Lapar-

*Read before the Louisiana State Medical Society, Shreveport, April 10-12, 1934.

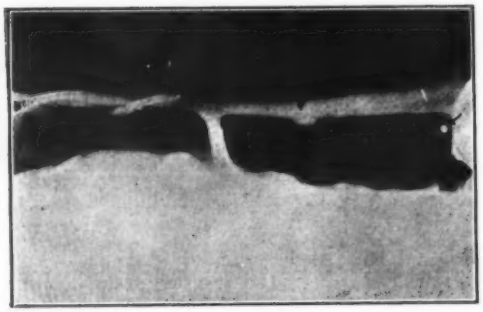

Fig. 2. Showing metastatic implants on the lateral peritoneal wall.

otomy April, 1931 revealed no metastases and a large papillo-cystadenoma of the ovary removed. The patient is at present in excellent health.

In looking over the literature on these cases we were able to find few similar reports. An Italian radiologist, Giulio Vita, reports a case of a young girl diagnosed by a noted surgeon and a noted internist as tuberculous peritonitis with ascites in whom a pneumo-peritoneum revealed a cystoma of the ovary. It was removed and the patient made a prompt recovery. It is not unlikely that if this method were used more frequently in cases of ascites of doubtful origin in females many such similar surprises would be had and real benefit for the surgeon and patient obtained.

Before showing some slides we would like to emphasize our reasons for reporting this procedure.

All of the patients were in imperative need of a paracentesis and no danger was added by the pneumo-peritoneum. The information obtained was of such satisfaction to the surgeon and ourselves that we feel the method should be more generally used.

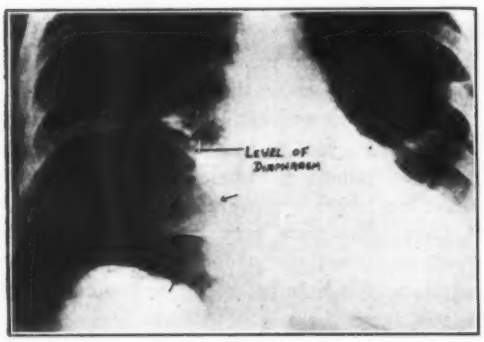

Fig. 3. Showing metastatic implants between the diaphragm and the liver.

DISCUSSION

Dr. A. G. McHenry (Monroe): I wish to take this opportunity of commending Dr. Fortier on his novel method of visualizing papillary cyst adenoma of the ovaries. This method has been utilized in visualizing obscure enlargements of the liver and spleen, intestinal adhesions and tumors of the mesentery, but its application to the enlargements of the ovary is very illuminating to me.

This method is not only useful in demonstrating the tumor but also the presence of metastases and adhesions, these last being of much value to the surgeon.

In listening to Dr. Fortier's presentation, three questions come to my mind; Does the doctor inject the air inside the tumor or just outside? Are all these cyst adenomas accompanied by free fluid in the abdomen? Would there be much more difficulty in the injection of air into the abdomen with the absence of free fluid?

Dr. Fortier (Closing): The paracentesis and pneumo-peritoneums were done by the surgeons in charge of the cases. No attempts were made to aspirate the cysts but this did occur in some of the cases.

Pneumo-peritoneum without the presence of ascites is not usually difficult.

TREATMENT OF ESOPHAGEAL STRICTURES WITH AIR AND WATER PRESSURE*

J. C. RICE, M. D.
NATCHEZ, MISS.

It is not the purpose to involve this section in an invasion of the eye, ear, nose and throat field, and to make sure that no such charge may be made I shall confine my remarks to that part of the esophagus below the pharynx, as I have been repeatedly warned that from there up lies the exclusive jurisdiction of the specialist.

Neither is it the purpose of this paper to set forth any new or startling facts in regard to the treatment of esophageal strictures. My experience in the work has been limited and I have been able to find very little helpful literature on the subject. I have been concerned with strictures near the diaphragh. I have made

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*Read before the Section on Surgery of the Sixty-Seventh Annual Session of the Mississippi State Medical Association, Natchez, May 8, 1934.

no use of the esophagoscope in my cases and shall not attempt to discuss the merits of this procedure.

The cases of esophageal strictures are listed usually as being due to:

(1). Result of chemical burns by swallowing lye or other household chemicals.

(2). Post-syphilitic and diphtheritic ulcers frequently leaving scars that constrict the esophagus to such an extent as to impair its function.

(3). Instrumentation by the inexperienced may be a frequent cause of damaging the walls of the esophagus.

(4). Tumors within the mediastinum, such as aneurisms and Hodgkin's disease, compress the esophagus so as to produce a collapse of the tube and thereby prevent food from passing through. In the same manner an enlarged liver may compress the esophagus. Particularly is this true of the lobus spigelii.

(5). There is, of course, the large functional or spasmodic group of strictures. This class of stricture is more frequently found in neurotic women.

(6). A congenital stenosis, or even partial absence of the tube, has been noted.

The particular type of stricture I wish to discuss is probably generally considered under the term "cardiospasm". That there is definitely more to this condition than a mere muscular spasm is quite evident to anyone who has tried to deal with the situation presented. It is now generally considered a true stricture which may arise from an infection within the chest or from gastro-intestinal sources. In addition to a true stricture there is also recognized another type case in the twists and turns of the terminal portion of esophagus. Unison reported 300 stricture dilatations; 25 per cent not cured but all relieved. I wish to report two difficult cases so far as end results are concerned:

CASE REPORTS

Case 1. A girl, aged eleven years, was emaciated and in generally poor health. For several years the family had been greatly concerned as to the health of their child. They noticed that she would rarely eat much at meal time, and then principally liquids. This they thought was due to the fact that she ate a great deal of candy between meals. She had been sent to Texas, without any improvement in her general health, although her physician had thought that pulmonary tuberculosis was the cause of her condition. With the exception of a red count of 3,500,000 and a 60 per cent hemoglobin, no noteworthy findings were to be had. During the course of a gastro-intestinal roentgen ray study, which was suggested by the fact that recently she had been spittting up food shortly after meals, it was found that none of the barium meal entered the stomach; however, the distal portion of the esophagus had been dilated to such an extent that a cavity easily holding two glasses of barium meal had been formed. It was then learned from the parents that at one time when the girl was very small they had become greatly excited over the fact that the child was found with household cleaning lye, but as the mouth was not harmed they felt sure that this could do no harm. An attempt was made immediately to pass the smallest esophageal olive dilator, but with no results. It was then decided to do a gastrotomy and manual dilatation, followed by retrograde dilatation if the silk string could be found that was swallowed two days previously; otherwise, gastrotomy was to be done. The stomach was opened and the stricture dilated. However, the string had not reached the stomach but was brought into view by a pull of the index finger after the stricture had been dilated. An eighteen inch rubber catheter was pulled through the mouth and connected to serve as a fluid tube for three days. The recovery was uneventful, so far as the operation was concerned, but the stricture was far from being removed. Two weeks after the operation, dilatation was begun with olive dilators. Fluroscopic control was used, on account of difficulty in judging position with reference to the main stricture. At two-week intervals dilatation was continued, using olive dilators, but the good effect was of short duration. It was then decided to try Plummer's hydrostatic dilator. This, as you know, is equipped with a gauge to measure water pressure in the dilator. I tried this out on hydrant pressure and felt sure it would work perfectly. In the actual case, whether the hydrant was so small that it was not detected in the short test made before treatment I do not know, but I do know that after inserting the bag into position for dilatation the pressure continued to rise after I had all that was needed, and had the bag not ruptured I believe disastrous results would have taken place before the apparatus could have been disconnected. Plummer claims air much more dangerous than water pressure, and I believe that is true, if some means is devised to use gravity by raising or lowering the source of water. However, I was altogether satisfied with this water experiment. I then took the gauge of a Tycos sphygmomanometer on one arm and used

the rubber bulb on the other arm of the "Y" tubing. With this arrangement I found painful dilatation in this case at 80. It has now been eighteen months since this treatment was started. Dilatation is not painful up to 100. When the operation was done the girl was eleven years of age—she is now sixteen. Little permanent progress was made in treatment up to eighteen months ago. She will still require additional dilatations, as a six months lapse in treatment invariably shows a narrowing of the opening. She now eats heartily, has normal weight, and is a first class basketball player.

Case 2. A married man, aged thirty-five years, always underweight and could never do the work he wanted to do, on account of weakness; never remembered having spit up any food, and only recalled after diagnosis that at times during all of his life he had had trouble drinking water fast. Eighteen months previously he became ill with what was thought to be influenza. He remained weak and was unable to fill his job for weeks. Finally, after roentgen ray examination of chest he was thought to have either cancer or pulmonary tuberculosis. It was only after several days' stay in a tubercular institution that a diagnosis was made. I saw him after the diagnosis had been made and preliminary dilatations done. He had been trained to empty his stomach by regurgitation. He had made better progress in restoring the tone of the esophageal wall than the previous case, and dilations were easier and lasted longer. In using the air pressure he could stand 110 without any discomfort.

If everyone had access to a Jackson or Plummer I would hesitate even to mention a subject of this kind, but realizing as we must that most of our patients have no such opportunities, it behooves us to adopt the most efficient and yet the safest method for the general surgeon to use. These cases, it is true, are rare, but they deserve the consideration of the surgeon; and, with all due respect to the eye ,ear, nose and throat man, I do not believe that he has one thing to add to the treatment that the general surgeon cannot supply. In fact, it is not only general surgery, but it is major surgery and filled with the gravest possibilities of disaster if not intelligently handled. It is my opinion that the man seeing a casual case of this kind should work under control of the fluroscope. For men of wider experience it may be that such is a handicap. It is also my opinion that air pressure, using the Plummer instrument, always following the swallowed thread, is a safe procedure if the pressure is checked by a gauge and not by guess.

DISCUSSION

Dr. D. C. Montgomery, (Greenville): I must confess that I am not particularly familiar with the use of air and hydrostatic pressure in the treatment of organic stricture of the esophagus. Dr. Rice has stated very clearly that he did not think the ear, nose and throat men could add anything to the treatment of this condition, but I must disagree with him on this point.

Strictures of the esophagus come under two classes, functional and organic. Of the functional type cardiospasm is most common. This condition has been known for more than two hundred years and I believe in 1903 it was first treated by doing a gastrostomy and then introducing from the stomach end a rubber bag fixed on the end of a stomach pump through the stricture and pumping air into the bag, and in this way dilating the stricture. Various instruments are now on the market depending upon either air or water to obtain their results.

Treatment of the cardiospasm along these lines has been very successful, however, I must disagree with Dr. Rice in saying that the water pressure method for the treatment of organic strictures is the safest method. In fact it is practically impossible to use this method in most cases until there has been a preliminary dilatation of the stricture by some other method. It is with difficulty that even a small string can be made to pass through the average organic stricture after the manner of Plummer. There is no way to tell whether a stricture is single or multiple until one has examined the case through a esophagoscope, and dilated with Jackson's dilators; frequently a second stricture is found below the first, and must be taken care of also.

I have treated six cases of stricture of the esophagus, four of them being almost complete. It was just possible to get a string through them. A preliminary gastrostomy was performed, and after the string was swallowed and brought out, through the gastrostomy opening, Tucker's retrograde dilators were used, bringing the dilators up through the stomach and out through the mouth, a string being attached to the end of each dilator, and left in place in the esophagus and running out the mouth above and fastened to the cheek with adhesive tape and out the gastrostomy opening below after each treatment.

The other cases had single strictures high up in the esophagus and were treated through the esophagoscope under direct vision with Jackson's rat tail dilators.

Blind bouginage is to be condemned in every

case. It is vicious and dangerous in the extreme.

Bougies or dilators must always be done under direct vision unless using a swallowed string as a guide, which has been brought out through a gastrostomy opening.

In closing I must say, and I think all of you will agree that Chevalier Jackson has contributed more to the knowledge and the treatment of organic strictures than any other man, and he was first of all an ear, nose and throat specialist, who became pre-eminent as a bronchoscopist, and I do not believe his methods of treatment have been improved upon.

Dr. J. M. T. Finney, (Baltimore, Md.): I have been very much interested in listening to Dr. Rice's paper. It recalls to my mind certain incidents that I have not thought of for years.

When, in 1899, the Johns Hopkins Hospital first opened, the various specialties had not developed as at present, especially with regard to the operative work. This was usually referred to the general surgeon. My chief, Dr. Halsted, was not interested in work of this character, and so it fell to my lot. Stricture of the lower end of the esophagus in those days was a very common affection. It occurred mostly in children, curiously enough, the majority of the cases being from North Carolina. I do not know whether or not concentrated lye is a popular drink in North Carolina, but we used to think it surely must be, judging by the number of cases who presented themselves from that state suffering from this lesion. I became so much interested that I made inquiries as to just what was the explanation of this phenomenon. It was found that concentrated lye was put up in packages very similar in appearance to those containing condensed milk. Children accustomed to condensed milk would see cans sitting around, and thinking it was milk, would drink the contents. I then took up the question with the Federal authorities, and secured the passage of an order requiring that lye and condensed milk be put up in different appearing packages, and distinctly marked.

We tried all kinds of devices, both from above through the pharynx, and from below through a gastrotomy, in our endeavor to relieve the stricture. The method of swallowing a string appeared about that time. We tried every known method of dilatation, from above and from below, by the aid of the string and instrumentation, and hydrostatic and air dilatation by means of a bulb, and so on. Some cases were relieved quite satisfactorily, especially if gotten early, but many of them seemed to be little benefitted.

In this connection, on one occasion a child was brought to my clinic just at the end of the hour. At the previous clinic I had showed a half dozen or so cases of stricture of the esophagus, and had rather emphasized the fact that they all were due to drinking concentrated lye, and that they all had come from North Carolina. Quite a number of the students in the class were residents of North Carolina. Being a little facetious, I inquired of the two women who brought the child in, "And what part of North Carolina do you come from?" The elder woman replied, "We don't come from North Carolina", whereat the class gave me the laugh. I acknowledged that the joke was on me. At the end of the laugh, however, the younger woman spoke up and said, "Yes, but we were visiting in North Carolina when she drank it." Then I laughed. He laughs best who laughs last.

Dr. Rice, (closing): I just wish to say to my good friend, the eye, ear, nose and throat man, that there was no reflection intended on these men. I was merely trying to be funny at the expense of my own associates, and my impertinence was intended for them here in Natchez. The eye, ear, nose and throat men don't want these cases. There is no good reason why the general surgeon should pass them up; they ought to be worked upon and if your eye, ear, nose and throat men are not inclined to take them, we should do it ourselves. It is not a hopeless situation in a community as a work for the general surgeon.

CASE REPORTS AND CLINICAL SUGGESTIONS

SOME VITAMIN CONTAINING FOODS

OSCAR W. BETHEA, M. D.†
NEW ORLEANS

Many definite facts have been established in regard to the role of the vitamins in human affairs, and yet it is possible that we have barely scratched the surface of the sum total of what we are to learn.

The most important probability is that for every case of definite vitamin deficiency disease that comes to our attention there are a countless number of individuals struggling through life with an unrecognized handicap from the same cause.

There are definite obligations resting upon us as custodians of the well-being of those looking to us for health guidance. We recog-

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†Professor Clinical Medicine Tulane University.

nize this for such conditions as protection against small pox, typhoid, diphtheria and goiter; do we not tend to neglect it in the matter of vitamin deficiency?

A comparatively small list of palatable and easily obtained foods will cover all that is necessary to meet the vitamin requirements of a family. Such a list can be multigraphed for a few cents a hundred. The busy physician can hand these out as opportunity presents. A few words of explanation, a little encouragement, and an occasional check-up will prove to be all else that is needed.

The following is submitted as practical and fairly satisfactory for such a purpose.

SOME VITAMIN CONTAINING FOODS

Milk, cream, butter.

Bread and cereals—Whole wheat bread, rye bread, whole wheat cereal, oatmeal.

Fruits—Lemons, oranges, grapefruit, grapes, apples, peaches, strawberries, bananas, pineapple, watermelon, cantaloupe.

Vegetables, raw—Lettuce, cabbage, celery, tomatoes, carrots.

Vegetables, cooked—Carrots, pumpkins, yams, spinach, fresh beans and peas, yellow corn.

Meats—Liver, broiled steak, roast beef.

Eggs—Soft boiled, poached or shirred.

Oil dressings (made with olive oil, lemon juice, egg, etc.)

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DIFFICULTIES WITH THE E. R. A.

Rather keen disappointment has been experienced by physicians throughout the State of Louisiana who had felt that the E. R. A. assistance to sick indigents was going to benefit their economic depression. New orders, conflicting instructions, and various other unforeseen executive difficulties have prevented this from happening. In the large cities of the State, the administrators of the E. R. A. have been informed from Washington definitely that no E. R. A. funds were to be employed for the care of the sick where there existed hospital facilities, and that such facilities were to be used to the utmost. Consequently, the benefit derived from the E. R. A. program in the cities has been nil. In the suburban and rural districts, the E. R. A. care of the sick, according to the instructions from headquarters, is limited entirely to the care of emergencies. Just what constitutes an emergency is a matter to be determined by a lay individual without medical training, a very remarkable implication of lack of trust in the medical profession.

When one observes the absence of a definite policy in the administration of the E. R. A. as to its relations with the physician, when one hears of conflicting orders and changed plans, when one notes the backing and sideslipping and irregular course of the E. R. A., one is impelled to remark with fervor "Lord help the medical profession if it ever comes under State supervision."

DENGUE

The occurrence in Louisiana and Mississippi of a febrile disease, which resembled closely dengue, during the latter part of the summer and early fall, has been a subject of some discussion by medical men. A few have contended that dengue has not been present in the South in the last twenty or thirty years. Others have said that this disease that a few physicians were seeing, was not influenza but resembled real dengue as it occurred several decades ago.

Apparently the physicians who believe that dengue was occurring in these two States are correct. A recent number of the United States Public Health Reports of October 5, 1934, states that in Georgia 40 cases of dengue were reported for the week ending September 22. In Miami, Florida, it was estimated that there were approximately 1,000 cases of dengue in the city. In addition to this city, eight other towns and cities in Florida reported isolated cases which occurred within their precincts. A further comment was to the effect that the incidence of dengue in Miama was diminishing and the *Aedes* index likewise was decreasing.

While malaria at this season of the year is

likely to be seen infrequently, so likewise is there not any great likelihood of dengue occurring in large groups of individuals. The mosquito undergoes a marked reduction in numbers during the winter months, but next year, if there is an increased mosquito incidence, it is quite possible that dengue may be epidemic at some time or another during the warmer weather.

SCARLET FEVER ANTITOXIN

There has been a great deal of discussion in the past few years on the value of antitoxin in the treatment of scarlet fever. Not only in publications, but also in conversation, the feeling has been expressed that scarlet fever antitoxin is on the whole not a particularly satisfactory therapeutic agent. On the other hand, there have been certain proponents of the use of this antitoxin who have upheld their arguments most satisfactorily. A recent paper by Lucchesi and Bowman* is of considerable importance because it represents a study of the records of 5,377 cases of scarlet fever, of whom approximately three-fifths received the antitoxin and the balance did not. This very large group of cases adds more weight to the debatable point as to the efficacy of treatment than would the individual opinions of the men who see only a few cases from time to time.

The authors studied the disease from three points of view; the duration of fever, the incidence of complications, and the occurrence of serum reactions. Their figures tend to show that there was a decrease in the number of febrile days in the mild and moderately severe groups, and a substantial reduction in the severe groups. Likewise, in the severe group of cases complications were less frequent in the treated than in the untreated children; whereas in the mild and moderate cases, although the tendency was for the complications to be less frequent than in the former instance, there was considerable, but not marked difference, between the two groups. Serum reactions occurred in 36.3 per cent of the patients.

The scarlet fever that has occurred in the last few years has been an exceedingly and extremely mild disease. It is the contention of some practitioners that the serum reaction, following antitoxin administration which in our experience occurs in nearly 100 per cent of the cases, is worse than the actual disease. However, it must not be forgotten that occasionally severe cases of scarlet fever do occur, and when they do happen there is a strong likelihood of the patient dying. If Lucchesi and Bowman in their large series found that antitoxin was of value in the severe forms of scarlet fever, it certainly would add to the evidence of the value of this form of therapy. Scarlet fever will not always be a mild disease, nor is one qualified to say from the onset, when the treatment is most efficacious, that the disease is going to be mild or severe. In spite of the published observations of these two authors, our experience has been somewhat different, namely, that the antitoxin works like magic in mild and moderate cases, but seems to exert very little effect on the severe cases. This observation has been made only in a few instances as severe scarlatina has been a rare disease of late. We are inclined to attribute the poor results in the grave cases to inadequate dosage of the antitoxin. The usual dose is the so-called "therapeutic dose", and judging by analogy from other infectious diseases in which antitoxin is of value, to secure the anticipated and hoped for results large doses must be given to those severely sick with the disease which is to be treated. It is rather unfortunate that the term "a therapeutic dose" has been employed and is being used now to indicate the amount of antitoxin to be given, because antitoxin, which represents entirely a quantitative accession to the body of material to combat a specific infection, should be given in doses varying in amounts according to the severity of the disease. It is our feeling that in the severe cases of scarlet fever if large doses of the antitoxin were given promptly and immediately, the effect would be as beneficial as it is in the mild cases where only a therapeutic dose is administered.

*Lucchesi, Pascal F., and Bowman, James E.: Antitoxin versus no antitoxin in scarlet fever, J. A. M. A. 103:1049, 1934.

HOSPITAL STAFF TRANSACTIONS

TOURO INFIRMARY

The first regular meeting of the medical staff of Touro Infirmary since the summer vacation was held Wednesday, October 10, 1934, at 8:00 p. m., with Dr. Sidney K. Simon, Chairman, presiding.

A case of pemphigus foliaceus was shown by Dr. R. A. Oriol. This patient, a white male, had been treated with weak potassium permanganate baths, and chromium sulphate internally. The treatment had resulted in marked improvement, so that at the time of the demonstration only the remains of the eruption were visible. Dr. Oriol discussed the disease, its classification, and treatment. Drs. Howell and Lemann discussed the presentation.

Three cases of juvenile diabetes were presented and discussed by Dr. Lemann. Each presented a different problem in the management of these young diabetics. The first, a six year old boy, demonstrated the marked oscillations in blood sugar levels so often present in young individuals. The second case had been complicated by multiple furuncles and staphylococcal septicemia with complete recovery following the use of blood transfusions, vaccines, and careful management of the diabetes. The third, a young girl of 18 years of age, with tuberculosis of the spine in a plaster cast for many months, was doing very well both as regards her tuberculosis and diabetes.

Dr. Lemann then presented a case of pituitary tumor with infantilism in a young male 36 years of age. The space encroaching process in the sella turcica had also resulted in complete loss of vision in one eye and partial loss in the opposite eye. The case was considered inoperable.

These cases were discussed by Drs. Levine, Lyons, Von Meysenbug, Anderson, and Henry Blum.

Dr. Curtis Tyrone spoke on five cases of prolapse of the uterus in nullipara. These patients were aged 50, 56, 61, 65, and 70 years respectively. Vaginal hysterectomy was recommended as the proper treatment for these cases, and two of this series had been so treated with excellent results. The condition was considered to be due to a congenital defect in the development of the fascial planes of the perineum with resulting prolapse later in life as a result of coughing, straining, or other effort. Cystocele and rectocele are usually associated. Drs. Mitchell, Collins, and Dicks discussed these cases and mentioned others which had come to their attention.

There then followed a presentation by the program committee of two unusually interesting cases with autopsy reports. One case was that of acute appendicitis, paralytic ileus and death following operation; the other case of probable aleukemic leukemia, and streptococcus septicemia. Both cases were adequately discussed.

Willard R. Wirth, M. D.

HOUSTON HOSPITAL STAFF MEETING

The regular monthly staff meeting of the Houston Hospital was held in the hospital building, Thursday night, September 27, with about 25 doctors from this and adjoining counties present. Dr. E. K. Guinn of McCondy presided at the meeting, which began at 7:30 p. m. with a luncheon served by the hospital nurses, during which hour musical numbers were rendered by Miss Ludie Temple and Mr. Carl Johnstone, Jr., Calhoun City.

The first number on the program was a lecture by Dr. Seale Harris of Birmingham on "Hyperinsulinism", which was considered by all present to be one of the most interesting subjects the staff has had the pleasure of listening to during the season. Dr. Harris was the first man to observe this condition, and soon after the discovery of insulin he began to work on the theory that if there was a disease of the pancreas that produced too little insulin, then there should also be a reverse of this, or a condition where too much insulin is produced. Dr. Harris gave a resume of his studies of hyperinsulinism and the work he has done, as well as that of other men who have followed him in the study and research of pancreatic diseases. He convinced all doctors present that the discovery of hyperinsulinism and the relief of this condition by frequent feeding is a great advance in medicine. We were, indeed, happy to have Dr. Harris with us.

The second and last paper on the program was "Sinus Infections in Children and Some of Their Sequelae," by Dr. Travis McGahey, also of Birmingham. Dr. McGahey delivered to the members of the staff one of the most interesting discussions of the cause, prevention, and treatment of sinus infections in children that our memers have had occasion to listen to. He stressed especially the preventative treatment necessary in sinus diseases in children, also the importance of conservatism in the majority of cases in treating this common condition. His talk was also greatly appreciated by all doctors present.

A committee composed of Drs. J. R. Williams, W. J. Aycock, and W. C. Walker was appointed to draft resolutions concerning the death of Dr. George F. Darracott of Houston, a member of the staff, and a constant attendant at our meetings, said resolutions to be read at the next meeting of the staff, and a copy of same to be sent to Dr. Leon S. Lippincott, Mississippi editor of the New Orleans Medical and Surgical Journal, a copy to

Dr. W. H. Anderson, editor of the Mississippi Doctor, and also a copy to the family of Dr. Darracott.

Eva Collins.

KING'S DAUGHTERS' HOSPITAL STAFF MEETING

GREENVILLE, MISS.

The monthly meeting of the King's Daughters' Hospital staff was held Wednesday evening, October 3, Dr. John F. Lucas presiding. Resolutions in memory of Mrs. Bessie Johnson Taylor and Dr. A. G. Payne, as drawn up by Drs. Eubanks, Lewis and Archer, were read and adopted.

Case reports and scientific discussions were omitted, and the meeting given over to the committee on arrangements for the Delta Medical Meeting, to be held in Greenville, October 10. Drs. Archer, Lewis and Hirsch, discussed the preparations made for entertaining the society. They promised good eats and a big time for all.

The program for the November meeting was outlined, and the meeting was adjourned.

John W. Shackleford.

RUSH'S INFIRMARY

A meeting of the staff of Rush's Infirmary, Meridian, was held September 25, at 7 P. M., with the following program:

(1). Roentgenograms:

(1). Achalasia of esophagus; (2) tuberculosis lung; (3) abscess lung; (4) osteochondritis dissecans; (5) fracture internal semilunar cartilage; (6) coxa vara; (7) pathological dislocation of hip; (8) chronic osteomyelitis; (9) ununited fracture with osteomyelitis; (10) chronic cholecystitis contrasted with normal gall bladder; (11) hydronephrosis; (12) pyelonephrosis; (13) kidney stones.

Case Reports:

(2). Thrombosis of Internal Jugular Vein, Mastoiditis and Generalized Tuberculosis.—Dr. H. L. Arnold.

(3). High Intestinal Obstruction in a 76 Year Old Man.—Dr. Lowry Rush and W. C. Morris.

(4). Lung Abscess Following Tonsillectomy and Carcinoma of Lung.—Dr. L. Hart.

(5). Inguinal Hernia With Incarcerated Ovary and Tube in a Six-Weeks Old Infant.—Dr. Leslie Rush and W. J. Sarber.

(6). Bladder Stone Diagnosed by Cystoscope and Proved by Surgery.—Dr. Julian T. Bailey.

(7). Twins With Placenta Previa at Six Months. Motion Picture.—Dr. E. B. Key.

Leslie V. Rush.

VICKSBURG HOSPITAL AND CLINIC STAFF MEETING

October 11, 1934, 6:30 P. M.

1. Report of recent visit to Mayo Clinic.—Dr. W. H. Parsons.
2. Coarctation of the Aorta.—Dr. W. K. Purks.
3. Discussion of Recent Literature.—Staff.
4. Demonstration of Roentgenograms.—Dr. W. K. Purks.
5. Luncheon and aljournment.

W. H. Parsons.

Case Report: Coarctation of the Aorta—Adult Type.—Dr. W. K. Purks.

An American housewife, aged 23 years, was first seen on September 27, 1934, complaining of shortness of breath and pain in the chest of seven years' duration. Her family history was essentially irrelevant. She had been married for three years. Her husband was living and well. Pregnancy had been prevented by use of contraceptives. It was felt that this was imperative in view of her impaired state of health.

Past History: She had had measles, mumps, whooping cough and chicken pox in childhood and occasional light attacks of "lagrippe." There was no history of rheumatism, chorea, recurrent sore throat, "growing pains," epistaxis or other stigmata of rheumatic infection. There was likewise no history of syphilis. A general review of her history by systems was completely negative. Her health had been good, except as related in her present illness.

Present Illness: In childhood, she noticed slight shortness of breath on exertion, but played actively and developed normally. At the age of 16 years, she entered training to become a nurse. Soon afterward the shortness of breath became quite marked and the palpitation was troublesome. She therefore had a general examination which disclosed an elevation of blood pressure though apparently no other abnormality. She continued her training. At the age of 18 years, shortness of breath and palpitation became so severe that she was forced to bed for a period of rest. She subsequently got up and by limiting her activities was able to do fairly well. She married three years ago and has been able to do her housework, though she finds it rather tiring. For two years she has, in addition to the shortness of breath, had precordial pain typically anginal in character and with radiation down the left arm as far as the elbow.

She had consulted quite a number of physicians, most of whom said she had high blood pressure and gave her a bad prognosis. She gathered the impression that she had not more than a few years to live at best.

Physical examination showed good development and fair state of nutrition. She was over-breathing slightly. Complete examination was essentially negative except for the findings listed below:

In the suprasternal notch there was an abornmal pulsation produced by a dilated and tortuous right common carotid artery. There was no tracheal tug. The thorax was well developed and nourished. Chest expansion was good and equal on the

two sides. The lungs were negative except for occasional rhonchi heard over the central portions of the chest. The cardiac impulse was not seen and was poorly localized on palpation. The left border of cardiac dullness measured ten centimeters from the midsternal line in the fifth interspace. There was no increase to the right. There was no increase in retromanubrial dullness. Auscultation showed the heart to be over active. Its rate was somewhat increased, being 100 to the minute. The action was regular, the sounds were of fair quality and at the apex no murmurs were heard. Over the base, and best heard just to the right of the sternum, there was a harsh systolic murmur of short duration. This murmur was not accompanied by a thrill. There was no basal diastolic murmur. Auscultation in the interscapular region posteriorly revealed that the systolic murmur heard at the base was well transmitted through the chest. Auscultation over the right lower chest likewise revealed a systolic bruit over the lower ribs. There was no thrill at this point. Her blood pressure was 150/105. Examination of the abdomen showed a complete absence of any pulsation in the aorta. Both lower legs were somewhat cold. There was no pulsation in either popliteal, dorsalis pedis or posterior tibial arteries. An attempt to record the blood pressure in the right leg showed values too low to record.

Laboratory Studies: Examination of the urine showed no abnormality. Kidney function tests including the phenolsulphonphthalein excretion and Fishberg concentration test, were likewise normal. The electrocardiogram showed normal curves. A roentgenogram of her chest at seven feet showed a rounding and blocking of the apex of the heart which appeared slightly enlarged. The right cardiac border was relatively straight. There was a complete absence of the aortic knob. The lung fields were entirely normal. At various points along the ribs on both sides in the upper and lower chest there was definite notching and scalloping characteristics of coarctation of the aorta.

Summary: We have here a young patient with a persistent hypertension and no evidence of renal damage. This should always suggest coarctation. The evidence of collateral circulation in the chest and the absence of arterial pulsation in the legs lead to a presumptive diagnosis which the roentgen ray completely confirms.

VICKSBURG SANITARIUM STAFF MEETING

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held on October 10, Dr. G. M. Street, president, presiding. After the business of the staff and reports from the records department and analysis of the work of the hospital, special case reports were presented as follows:

1. Postoperative Entero-Abdominal Fistula.—Dr. A. Street.

2. Acute Septic Osteomyelitis of Femur.—Dr. G. C. Jarratt.

3. Pelvic Abscess—Elliott Treatment.—Dr. R. A. Street, Jr.

The following cases from the cancer clinic were discussed:

Dr. G. M. Street.—Adeno-carcinoma of Left Breast (Grade III).

Dr. A. Street.—Adeno-carcinoma of Cervix Uteri (Grade III): Adeno-carcinoma of Prostate (Grade III); Squamous cell carcinoma of Sigmoid Colon (Grade III); Melanoma of Liver; Squamous cell carcinoma of Cervix Uteri (Grade IV); Squamous Cell Carcinoma of Parotid Region (Grade IV).

Selected radiographic studies were presented as follows: Osgood-Schlatter Disease of Left Tibia; Arthritis of Right Knee With Joint Mouse; Carcinoma of Pelvis, Metastatic (2 Cases); Osteomyelitis of Thumb; Osteomyelitis of Femur With Pathological Fracture; Ununited Fracture of Neck of Femur With Osteolysis.

Three-minute reports of the literature of the month were presented as follows:

Dr. L. S. Lippincott.—Glucose Tolerance Tests.

Dr. R. A. Street, Jr.—Non-Convulsive Toxemias of Pregnancy.

The meeting closed with a lunch.

The next meeting of the staff will be held at the Sanitarium.

Leon S. Lippincott.

Abstract. — Post Operative Entero-Abdominal Fistula.—Dr. A. Street.

Patient.—White male, aged 8 years; admitted to Sanitarium, September 16, 1934.

Chief Complaint: Abdominal fistula with fecal discharge.

Present Illness: Had appendectomy for chronic appendicitis three years ago. About eight months later developed acute intestinal obstruction; laparotomy for relief. The fecal fistula has been present since this operation. Operation for repair of fistula in 1932, with no relief. Discharge has been thin and irritating so that extensive excoriation of the skin of the abdominal wall was present until it was controlled by the use of a paste for protection. Bowels are usually fairly well open but at times become constipated. Constipation is associated with increased discharge from the fistula. General health good. Weight and strength are normal. Good appetite and digestion.

Previous History: Operation for harelip at six months of age. Thoracotomy for suppurative pleurisy following appendix operation.

Family History: Mother and father living and well. No brothers or sisters. No tuberculosis in family.

Physical examination: General physical examination showed nothing important. There were scars of a harelip repair and right thoracotomy. There was a low right rectus laparotomy scar with a small discharging fistula. Discharge was thin and yellow. The character of the discharge and its excoriating effect on the skin suggested that the fistula was to the small intestine. The patient brought with him roentgenograms taken after injection of radiopaque fluid into the fistula. The films showed the substance in the intestine. There were no abdominal masses and no tenderness. Examinations of blood and urine showed nothing abnormal.

Blood Wassermann was negative.

Operation: September 17, 1934. Elliptical incision excising the entire old scar and isolating the tract. The distal end of the tract was closed by clamps. Peritoneum was entered some distance from the fistula, the adherent underlying structures freed from the abdominal wall and parietal peritoneum, and a mass of adherent loops of small intestine with the fistulous tract attached to it was lifted out of the abdominal cavity. The cavity was protected by pads. Separation of the loops in this mass was very tedious and time consuming. At one point the lumen was partially pinched off by a dense band, forming a definite small diverticulum. Finally the loop into which the tract lead was isolated, the fistula amputated, and the bowel repaired by suture, the lumen at the point of repair did not appear entirely adequate and so a lateral anastomosis was done around all of the intestine which had been in the adherent mass.

Subsequent: The convalescence was entirely uneventful. The highest temperature was 101°F. on the second postoperative day. It was normal after the fourth day. Wound healed by primary union and the patient was discharged from the hospital in good condition on the eleventh postoperative day. He was taking ordinary diet and bowels were moving normally.

Abstract: Acute Septic Osteomyelitis Of The Femur.—Dr. G. C. Jarratt.

Patient—Colored female, aged 12 years; first seen September 13, 1934.

Chief Complaint: Fever, pain in right leg; draining sinuses of right knee, loss of weight.

Present Illness: Mother stated illness began with pain in right thigh and very high fever in March of 1934. Very soon marked swelling in middle of thigh with redness and severe pain. This continued with increasing pain and swelling and continuous fever until June, 1934, when there was localiaztion on each side of lower thigh and knee and rupture. Has continued to drain since. At time of rupture fever came down and pain was less. Marked loss of weight since onset. Has gained some weight since June, 1934. Child was treated elsewhere at the time of the height of illness with rest in bed and hot wet dressings to involved areas. No acute illness of any type preceeded above illness.

Past History: Only contagion, chicken pox. Only immunization, typhoid vaccine in 1930. "Typhoid-malaria" in 1930.

Family History: Father died from hernia operation; mother living and well; two brothers living and well; two sisters living and well. No tuberculosis contact.

Physical Examination: General examination showed nothing remarkable. Right lower extremity showed marked swelling and hardness of lower two-thirds of right femur and slight anterior bowing. On inner and outer surfaces of condyles of femur were draining sinuses. There was a deformity of lower end of femur so that when the upper end of the femur was in normal position in relation to the pelvis the lower end was rotated outward to the extent of 90°, evidently due to a pathological fracture above the condyles with the above noted rotary displacement.

Roentgenogram revealed a healing osteomyelitis of lower two-thirds of right femur with pathological fracture above condyles with posterior displacement of lower fragment. Some sequestrum formation.

Mantoux test negative.

Blood: Hemoglobin 72 per cent; erythrocytes 4,910,000; polymorphonuclear leukocytes 47 per cent, lymphocytes 53 per cent. No malaria found.

Advised hospitalization for purpose of opening along lower two-thirds of femur and removing sequestrum, breaking at point of pathological fracture, and correcting deformity.

Abstract:—Pelvic Abscess—Elliott Treatment.—Dr. R. A. Street, Jr.

Patient: White female, aged 44 years, married; admitted to the Sanitarium August 29, 1934.

Chief Complaint: General abdominal pain preceeding and accompanying bowel movements; aching and soreness in vaginal region; moderate leukorrhea.

Present Illness: Began two weeks ago with rather sudden onset of severe low abdominal cramp; much backache at first. Temperature has varied from 100 to 101°F. No marked diarrhea; no headache; no vomiting; no cough; no hemoptysis. Had lost some weight in past two weeks, exact amount not known. There had been profuse sweats. No urinary frequency, burning or urgency. Last menstrual period nine days ago, profuse for four days, lasting six days. Symptoms had gradually become worse and previous treatment had been ineffective. Appetitie had been fairly good.

Previous History: Not remarkable. Tonsillectomy eight years ago. One child living and well, 17 years of age. Pregnancy uneventful and

labor and puerperium uncomplicated. Menstrual history not remarkable. No leukorrhea up to onset of present illness.

Family History: Not remarkable.

Physical Examination: Temperature 98.2°F.; pulse 80; respiration 18; blood pressure 140/90. General examination not remarkable except for abdominal and pelvic findings. Abdomen slightly tender in lower portion but no masses. No herniae. Pelvic examination showed fairly intact perineum; cervix sharply forward; external os patulous; old laceration of cervix, stellate type; the fundus retroverted and tender and not easily movable. Lateral fornices were free in the anterior portions; posterior cul-de-sac entirely filled with a dense thick mass, extremely tender and not easy to outline from pelvic examination. By rectal examination pelvic mass apparently more to left and partly firm and partly fluctuant to palpation.

Clinical Laboratory: Hemogoblin 77 per cent; leukocytes 14,300; polymorphonuclears 72 per cent; no malaria found. Wassermann, Kline and Young, Kahn and Eagle flocculation tests, negative. Urine showed rare pus cells in catheter specimen. Feces essentially negative.

Procedure: A series of Elliott treatments was immediately started and continued daily up to September 8, making a total of 10 treatments. There was improvement. The only complaint was some discomfort after about the sixth treatment because of tenderness of vaginal mucosa. There was no evidence of any burn of any degree on several examinations. At each time the pelvic mass seemed to be gradually becoming smaller and less tender. Patient was then given a few days' rest and the Elliott treatment again started on September 13. After three treatments normal menstruation began and treatments were discontinued until September 22 when they were again started. Seven treatments were given, one each day up to the time of her discharge on September 29. At that time her general condition was greatly improved and the pelvic mass could not be made out at all. There was very little tenderness, uterus was in fairly good position and not as fixed as before.

Subsequent: Seen in follow-up clinic October 6 when pelvic examination showed a normal size fundus lying in the axis of the vagina and fairly movable, with no tenderness in the adnexa. The only finding at all abnormal was slight thickness of right adnexa; no tenderness. She had gained in weight and felt well and had no complaint. The only treatment other than the Elliott treatment consisted of sedatives for nausea and pain and laxatives.

THE OSCAR ALLEN TUMOR CLINIC
CHARITY HOSPITAL
NEW ORLEANS

The scientific meeting of October was called by Doctor J. T. Nix, Director. The essayist was Doctor Manuel M. Garcia, who presented the following:

BIOPSY AT THE CHARITY HOSPITAL TUMOR CLINIC

The advantages of a biopsy so far outweigh any consequent dangers that its performance has become mandatory in nearly every lesion whose nature may be malignant. It is axiomatic today that early diagnosis enhances the probability of success in cancer therapy. Despite much research the only reliable method of identifying malignant neoplastic disease is the histologic picture. Because in its incipiency the pathology is strictly local, it follows that early diagnosis, and with it, likelihood of cure, depend on the microscopic study of suspected tissue obtained by biopsy.

The greater enlightenment of the public causes an increasing number of patients to come under observation in the early stages, when the gross features of the condition lack diagnostic characteristics. In such cases resort to biopsy is imperative and usually very satisfactory.

Since the cardinal principle of therapy is complete extirpation or destruction in situ of all areas of the body actually or potentially involved, even at the sacrifice of important organs, treatment of malignancy, save in exceptional circumstances, should be undertaken only when a positive morphologic diagnosis has been made. The tragedy of radical treatment for a benign condition is thus eliminated. No patient is condemned to the mental anguish as well as to the physical sufferings of unnecessary heroic measure. Because of the earnest desire of the profession to curtail cancer mortality we are just as prone to err from excessive zeal as from neglect. Von Haam has properly emphasized that to deal with a benign condition as if it were cancerous, "giving the patient the benefit of the doubt," is just as disastrous as to procrastinate with the hope that an indolent lesion will heal by conservative methods. Of course this danger is not entirely dissipated by biopsy for many borderline tumors still puzzle pathologists. The chances of error from this source, however, are practically negligible when the opinion of two pathologists of ability and experience is available. Bloodgood believes that doubtful cases are not harmed by subjecting them to a period of radiation followed by repetition of the biopsy. He believes that "when good pathologists disagree, the lesion is usually benign."

It appears that the dangers of biopsy have been exaggerated. "Much of the fear of the dangers of biopsy in past years was due more to the malignancy of the disease than to the danger of the

biopsy, and many of the apparent bad results of the biopsy were due not to the biopsy itself but to the improper resort to this procedure or the improper method pursued," (Bloodgood). Wood has shown experimentally that the number of metastases is approximately equal from tumors subjected to biopsy and from control lesions. Experimental evidence that incision of a tumor intensifies its growth is inadequate (McGraw and Hartman). On the contrary statistical evidence derived from the study of large series of cases in the more important institutions devoted to cancer therapy, tends to show that biopsy produces no detectable harm. On the other hand, investigations with rat and mouse tumors prove that massage increases the incidence of metastases.

In spite of the possible dangers mentioned, the concensus of opinion is that biopsy is justifiable and indicated in the great majority of cases provided certain precautions are observed. Trauma must be minimal. The physician must be prepared to deal radically with the growth immediately the diagnosis of malignancy is established. Excision of the entire lesion is preferable to removal of a small piece whenever practicable by a simple technic. The method of tissue study must furnish a diagnosis in the shortest possible period of time. Where delay is unavoidable adequate radiation must be instituted. It is thus seen that the time factor is of utmost importance in avoiding undesirable sequelae.

In most instances besides definitely determining the presence or absence of malignancy, biopsy yields much valuable additional information. "The work of Broders, Ewing, and Regaud and Lacassagne tends to show that an adequate morphologic study of a tumor will indicate its histogenesis and degree of malignancy, including the metastasizing power and radio-sensitivity" (McGraw and Hartman). The type of neoplasm and its degree of anaplasia are factors which provide a rational basis for prognosis and largely govern the line of therapy to be followed in a given case. Much of the ultimate result of therapy depends on the choice of method employed whether surgery, radiation or a combination of both. The histologic picture provides an excellent guide to such decisions and the need of a biopsy thus becomes greater.

A microscopic study of every cancer case affords opportunities for gaining insight into the nature of cancer. Hence it becomes a scientific need. It confers authenticity to our case records. It permits controlled clinical research and enables us to estimate precisely the efficiency of our therapeutic methods.

Patients sometimes object to biopsy for fear that their condition will be made worse. The time devoted to convincing them of the value of consenting to the procedure is a concrete contribution to the advance in adequate cancer treatment for in the study of every lesion lies the hope of the ultimate solution of the riddle of cancer.

The routine employment of biopsy in the study of the patients coming to consultation at the Charity Hospital Tumor Clinic has been amply justified by the uniformly satisfactory results obtained. Of 394 cases seen at the Clinic during the year ending September 6, 1934, 226 were subjected to biopsy by our standard method. Their lesions were easily accessible and the tissue obtained permitted an accurate determination of the nature of the pathology. The malignant growths numbered 114 whereas 112 proved to be benign. Repetition of the procedure was necessary and successful in twelve instances. Five other biopsies were done with the Hoffman punch. In eighty-seven other cases microscopic study was possible before the institution of treatment but the location of their growths did not permit biopsy by the ordinary method. Hospitalization was necessary for the performance of esophagoscopy, bronchoscopy, sigmoidoscopy or for immediate major surgery once the diagnosis was made. Eleven patients refused to permit biopsy. All others came to the Clinic after excision of the primary lesion or after histologic diagnosis had been made.

Our technic for obtaining biopsies in the routine cases has been described by Von Haam (1). Under aseptic conditions the most suitable area of the lesion is infiltrated with 1 per cent procaine solution and a small piece of tissue is excised with the electrocautery loop; whatever bleeding occurs is controlled with the coagulating tip of the cautery. Small lesions are completely excised with the electrocautery. In the case of large subcutaneous tumors, instead of doing any dissection, tissue is secured with the Hoffman punch after infiltrating and making a 5 mm. incision in the skin. In any case prophylactic radiation is begun promptly and when the histologic report is obtained, whatever radical form of therapy indicated is then instituted.

SUMMARY

The importance of biopsy is discussed as regards accurate diagnosis, and as a means of guiding the prognosis and treatment of cancer. Its dangers and safeguards are enumerated. A brief statistical report of cases from the Charity Hospital Tumor Clinic and the biopsy technic employed are included .

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J. T. NIX CLINIC
NEW ORLEANS

At a meeting held in October, Doctor Alfred E. Smith presented the following paper:

PEDODONTIA

Though the physician and the dentist are fully versed with the embryology of dental structures, there is no doubt that a closer relation between these age-old professions should be created to assure better tooth formation. Embryology notes that the buds of the first permanent molars have their beginning in the seventeenth week of fetal life, and in considering such, we gather that the formation of normal tooth structure can be greatly assisted by the physician, for impairment of tooth structure is often avoidable during this period.

The pediatrician today is unquestionably filling a much needed and extremely valuable service, and there is no doubt that such services can be of greater value through hearty co-operation with the dentist. Let us not fail to realize the role of the dentist is not set forth until the child is eighteen months to two years old. Dentistry can render a valuable service only when teeth erupt in a normal condition. Rickets, malnutrition and endocrine disturbances always have their toll upon teeth. Without going into the subject of decay from within versus decay from without, let us bear in mind one positive fact, that tooth structure of lowered resistance, due to functional or nutritional disturbances is more susceptible to decay or dental pathology.

Today the medical profession is functioning with preventive medicine as its key-note, and so it should be with dentistry, but this can only be achieved by building normal tooth structure. We are aware of the fact that decalcification of the enamel with the resulting caries of the dentin occurs even in normal mouths, but the dentist can cope with such conditions. If we succeed in building normal tooth structure, we inadvertently have assisted in constructing supporting tooth structures such as the alveolar process and the normal development of the maxilla and mandible.

The development of the arches is solely dependent upon the function of the teeth through the process of mastication. Teeth being organs of mastication, the function of such is absolutely necessary to make possible normal development of the dental arches; disuse frequently being the cause of poor development.

The writer believes that upon the eruption of the deciduous teeth the physician in charge should advise the mother to consult the family dentist, and from this time on, there should be a threefold co-operation, namely, that of the physician, mother and the dentist in order that the best results may be obtained. In this way such conditions as malocclusion, gingivitis, periodontoclasia, bacterial colonies, and such dental anomalies as may result in functional disturbances may be prevented. Exfoliation of deciduous teeth is a normal physiological process and can be greatly aided by the prevention of dental caries or other oral pathology, thus allowing normal dentition to assist development to such time as exfoliation may be considered. The physician may note such abnormalities as mouth breathing, due to adenoids, thumb sucking, tongue sucking, etc., and with the co-operation of the mother eliminate such faults. Such hinderances are frequently common causes of malocclusion.

Since tooth formation starts with the beginning of the germ of the deciduous teeth and ends with the third molar, we can readily see the great span of years of consistent and careful medical and dental attention that is required in order to reasonably assure the patient of future dental health.

Let us consider in a very general way the histology of teeth. The first indication of the development of the teeth is the multiplication of the cells of the epiblast in a curved line on the crest of each arch in the area which is to be occupied by the teeth. By this multiplication of cells the epiderm is piled up in a ridge projecting above the surface, and at the same time the deep layer of the epiblast is forced down into the underlying mesoderm. This structure is known as the dental ridge. The tooth germ is composed of the enamel organ. From the base of the papillae fibrous tissues develop growing upward around the entire tooth germ and enclosing it in a definite sac of fibrous tissue termed the dental follicle, and the follicle wall by the end of the twelfth week has grown up so as to enclose the enamel organ.

First Permanent Molars.—The development of the first permanent molars is indeed different from that of other permanent teeth, these being the only permanent teeth whose enamel springs directly from the dental lamina in the same fashion as that of temporary teeth. They are also the only permanent teeth whose crowns are calcified before the individual is placed upon his own resources for obtaining nourishment. Let us pause to recall that these very important teeth have their origin in the seventeenth week and by the ninth month of fetal life calcification has begun. This fact again impresses us with the vast importance of the minute attention given by the physician in order that tooth development may be normal, for it is during the physician's care that the permanent tooth development must be coped with.

Now as to the study of child psychology and examination of the oral cavity: Too frequently in the home dentistry is referred to as an abhorring procedure and so the child is instilled with the horror of such service, practically from infancy, and it is no wonder that much difficulty is had in making an examination of the mouth. Where

the child has been reared in an atmosphere that creates a pleasant relation with the physician and dentist, one will find it a rather simple task to examine such children. It is a wise procedure at all times when receiving children for a dental and oral examination to gain the confidence of the patient, and by no means should any dentistry be attempted at the first sitting; thus allowing our little patient to feel at ease. It is often necessary to postpone the examination to the second and even the third visit to gain the patient's confidence. Dentists realize that a child once frightened will more than likely prove to be a difficult patient even in adolescent or adult life, and so such an individual will constantly avoid the dentist and their teeth will not infrequently go beyond repair. Today of all times we realize the vast necessity of early training and the creation of a close and friendly relationship between the child and the dentist. This is one of the many reasons for sending the child to the dentist when he is as young as eighteen months to two years of age. This of course may be considered a very early age, but unquestionably the child should become acquainted with the dentist as early as possile, not that dental treatment may be necessary, but in order that the child may have no fear of a dental office. It is obvious that there are other important reasons for early dental examinations, but generally, the psychological effect is a far reaching factor. No doubt the foregoing reasons have much to do as to why many of our adult patients are partially or totally edentulous.

After the first visit the child should be taken regularly to the dentist, at least every six months for examination and prophylactic treatment. The dentist should show the mother the correct way to brush the child's teeth so that she may give proper home instruction in the daily tooth brush habits.

Examination.—Roentgen ray examinations are frequently required to locate proximal surface cavities and also to determine the position of unerupted permanent teeth. Occasionally the roots of the deciduous molars fail to absorb and thus over retention of the deciduous teeth may result in deflected and malposed bicuspids. In such instances the deciduous teeth should be extracted immediately. The dentist should never extract deciduous teeth which have remained in the arch longer than the time of normal exfoliation without a radiograph, as frequently the permanent tooth is absent. It is advisable in such cases where the permanent tooth is to allow the temporary tooth to remain in order that the adjacent and occluding teeth may retain their normal relation and so prevent malocclusion. Such deciduous teeth may be retained for many years of adult life. Again such patients may be referred to the orthodontist to determine the advisability of extracing such deciduous teeth, and create a general shift of the remaining teeth by orthodontic treatment, which is advantageous in many respects, as such treatment would bring normal occlusion.

In cases of unerupted deciduous teeth, the roentgenogram may be used to determine if such teeth are present, as it is not uncommon for the temporary as well as permanent teeth to be absent.

It would be appreciated by all concerned if the physician would refer all cases of malocclusion to the dentist for him to determine the extent of such defect and advise the parent as to whether the case will adjust itself or require orthodontic treatment. Dentistry does not advocate normal occlusion simply for aesthetic reasons, but also because it allows normal masticatory function, which is essential in preserving teeth, as well as their supporting structures.

The mouth should be examined in every detail at regular intervals, and all irregularities should be charted for further reference. The child's first teeth are important because they must be of service for a period of from six to ten years. Considering that in the first five years, the child grows to approximately one-half of his adult stature, and that normal growth is very much assisted by correct mastication, and if the child is to be given a wholesome diet, a healthy mouth is essential. Children with carious teeth will not masticate thoroughly, although their intake of food is normal as concerns volume, but the desired result will not be fully accomplished. Frequently mothers are bewildered because their child does not develop, or for some unknown reason is losing weight. Many such cases are due to caries or malocclusion, particularly caries. Such conditions detract from the child's mental as well as physical development. A child will instinctively refrain from making known that he has a toothache, and especially if pain occurs when eating.

The writer fortunately has had the opportunity of seeing a child after an accident which occurred about two or three o'clock in the afternoon. The patient was nauseated upon admittance, and the vomited matter contained quantity of whole red beans. Upon viewing the mouth extensive caries was present. No doubt, the mother felt her child had taken a wholesome noon day meal, but was without cognizance of the child's failure to masticate due to caries. In a review of several thousand cases treated, the writer has noticed that in many instances the child's physical and mental condition was largely in keeping with his dental condition.

Relatively little dental attention has been given to children up to six years of age. This lack of

attention in the past was principally due to little or no interest by the dental profession, but fortunately today children's dentistry is a dominating factor in dentistry. The profession is largely advocating and organizing various societies for the advancement of children's dentistry. Let us educate the parent as well as the child, and may we look forward to the time when preventive dentistry will be an actuality. The healthy child is the one who eats, plays and sleeps well.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR

NOVEMBER 2—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

NOVEMBER 5—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.

NOVEMBER 7—Clinico-Pathological Conference. Touro Infirmary, 10:30 to 11:30 A. M.

NOVEMBER 7—Physiology-Pharmacology Journal Club, Richardson Memorial, 4 to 6 P. M.

NOVEMBER 9—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

NOVEMBER 9—French Hospital Staff, 8 P. M.

NOVEMBER 12—Joint Clinical Meeting, Orleans Parish Medical Society with the Charity Hospital Staff, Miles Aphitheatre, 8 P. M.

NOVEMBER 14—Clinico-Pathological Conference, Touro Infirmary, 10:30 to 11:30 A. M.

NOVEMBER 14—Physiology-Pharmacology Journal Club, Richardson Memorial, 4 to 6 P. M.

NOVEMBER 14—Touro Infirmary Staff, 8 P. M.

NOVEMBER 15—Eye, Ear, Nose and Throat Club, 8 P. M.

NOVEMBER 16—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

NOVEMBER 16—I. C. R. R. Hospital Staff, 12 Noon.

NOVEMBER 16—Mercy Hospital Staff, 8 P. M.

NOVEMBER 19—Hotel Dieu Staff, 8 P. M.

NOVEMBER 20—Charity Hospital Medical Staff, 8 P. M.

NOVEMBER 21—Clinico-Pathological Conference, Touro-Infirmary, 10:30 to 11:30 A. M.

NOVEMBER 21—Physiology-Pharmacology Journal Club, Richardson Memorial, 4 to 6 P. M.

NOVEMBER 21—Charity Hospital Surgical Staff, 8 P. M.

NOVEMBER 23—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

NOVEMBER 26—ORLEANS PARISH MEDICAL SOCIETY. Election of Delegates, Louisiana State Medical Society and nominations of Officers, 1935.

NOVEMBER 27—Baptist Hospital Staff, 8 P. M.

NOVEMBER 28—Clinico Pathological Conference, Touro Infirmary, 10:30 to 11:30 A. M.

NOVEMBER 28—Physiology-Pharmacology Journal Club, Richardson Memorial, 4 to 6 P. M.

NOVEMBER 30—Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

During October two regular meetings were held October 8 and October 22.

On October 8, Dr. Henry T. Scott, Director of Biological Research of the Wisconsin Alumni Research Foundation presented a paper on "Light and Its Application to the Irradiation of Foods."

Reports of the Officers and special and standing committees for the Third Quarter were read.

The following resolution honoring Dr. C. Grenes Cole was adopted at this meting:

WHEREAS, Dr. C. Grenes Cole, a member of our Society having been elected Coroner of Orleans Parish and has brought honor upon our Profession of the City of New Orleans, and

WHEREAS, Dr. C. Grenes Cole has displayed untiring energy as President of our Society and has continued his interest in the Society as Chairman of the Legislative Committee and member of both the State and Orleans Parish Committees, and

WHEREAS, his distinguished service as member of the Board of Administrators of Charity Hospital in promoting and protecting the interest of his Profession and the patients therein, therefore,

BE IT RESOLVED, That the ORLEANS PARISH MEDICAL SOCIETY has cause for satisfaction in including in its Memership such a distinguished physician, and the Society so regards the recognition of his influence, competency, intelligence and enthusiasm in the interest of the Profession and in public affairs as evidenced by his election, and

BE IT FURTHER RESOLVED, That we congratulate Dr. C. Grenes Cole on his continued service to the Medical Profession and the Community, and

BE IT FURTHER RESOLVED, That a copy of these resolutions be inscribed upon the minutes of this Body, and further that a copy be sent to the New Orleans Medical and Surgical Journal, and a copy signed by the President and Board of Directors be sent to Dr. C. Grenes Cole.

October 22, the following program was presented:

"Recent Advances in the Treatment of Squint and Heterophoria.

By: Dr. Chas. A. Bahn.

Discussed by Dr. Park Howell.

Glaucoma, A Nutritional Edema. Preliminary Report.

By: Dr. Hans Schroeder.

Discussed by Drs. Chas. A. Bahn and Allan Eustis.

Seeing How You See.

A film was shown by Dr. Wm. B. Clark.

Favorable action on the following amendment to the By-Laws was taken at this meeting:

Introduced October 8, 1934

It is recommended that the By-Laws of the Orleans Parish Medical Society be amended as follows:

ARTICLE I. MEMBERSHIP.

Paragraph—MODE OF ELECTION.

All applications for Active, Associate and Interne Memership shall be in writing, must be endorsed by not less than two Active Members in good standing, *and must be accompanied by check for current dues and State dues.* In the event the applicant is rejected he shall not be eligible for election for six months. All applicants for Active Membership, other than members of the Louisiana State Medical Society, or white physicians connected with any Hospital Staff or teaching staff of any recognized Medical School and not actively engaged in the practice of medicine, must submit evidence of a six months' residency in this Parish before their application can be received and posted. Applications shall be posted for thirty (30) days before being acted upon by the Board.

The part italicized is the only change in this paragraph. The rest is as presently in force.

The following members of the Orleans Parish Medical Society met to formulate plans for the establishment of a residential and day school for retarded and handicapped children: Drs. O. Joachim, Chas. J. Bloom, Robert A. Strong, C. S. Holbrook, Frederick L. Fenno, Ludo von Meysenbug, E. A. Socola and Julian Graubarth.

Any member interested in this project kindly communicate with Dr. Chas. J. Bloom, Chairman.

Of particular interest to the Medical Profession at large is the communication recently received from the Times-Picayune stating that effective October 29 medical articles previously carried by Frank McCoy, chiropractor, will be discontinued and in their stead will appear articles by Dr. Irving S. Cutter of Northwestern University. This action on the part of the Times-Picayune is the culmination of a series of objections brought up by the Society on the type of articles written by McCoy which were misleading and, in the opinion of the Profession, of inestimable injury to the lay public.

Dr. Clotilde Jauquet has been in Brussels, Belgium for some time.

Dr. Russell E. Stone attended the recent meeting of the American College of Surgeons.

Dr. Robert A. Strong discussed Erythroblastic Anemia in Childhood, October 10 before the Annual Session of the Indiana State Medical Association at Indianapolis.

The members are urged to notify the Secretary's office of any changes in addresses in order that the Journal and meeting notices may be forwarded promptly.

TREASURER'S REPORT

ACTUAL BOOK BALANCE 8/31/34:	$ 989.96
Credits:	$ 262.49
TOTAL CREDITS:	$1,252.45
Expenditures:	$ 434.32
ACTUAL BOOK BALANCE 9/30/34:	$ 818.13

LIBRARIAN'S REPORT

More extensive use has been made of the Library during the past three months than during any summer since the Library's reorganization. The reading rooms have been unusually comfortable, being equipped with fans, and there has been a procession of readers coming and going all during the hot weather,—some to borrow material for home reading, some to spend an hour or so in casual reading, and a great many to stay for several hours or half a day in serious and continued research. Staff vacations have been so arranged that three persons have been on duty in the two libraries at all times, and the reference work and book loans have thus been cared for promptly at all times.

At the request of physicians, material has been collected on the following subjects during the quarter:

Quantitative estimation of adrenalin in the blood.

Life of Gregorio Guiteras.

Growth and development during the first year of life.

Cooley's anemia.

Properties of phenolphthalein for emergency case of accidental overdosage.

Standard preoperative routine preceding operation for cataract.

Origin of symbol for prescription.

Anemia infantum pseudoleukemia.

Origin of use of colored fluids in drug stores.

Thyropituitarism.

Leiomyoma of prostate.

Chlorosis.

Ulcerative colitis.

Carbuncle of kidney.

Myositis.

Rattlesnake venom in treatment of cancer.

Gastric juices and their significance.

Tumors of cerebellum in children.

Carcinoma of rectum.

Galactose in liver function test.

Common duct obstruction.

Information about Dr. Louis Jewell.

Intestinal sand.

Personal bibliography of Dr. J. A. Lanford.

Ionization in treatment of hay fever.

Information about physician prominent in New Orleans early in nineteenth century. (Dr. J. O'B. Lawrence).

Beginning with October 1, the Library resumes its evening hours of opening: 7-11 P. M. on Monday through Friday.

One hundred and sixty-two volumes have been added to our collection from July through September. Of these 99 were received by binding of current journals, 39 by gift, 13 from the New Orleans Medical and Surgical Journal and 11 by purchase. New titles of recent date are listed below.

NEW BOOKS

Proceedings of the Annual Congress on Medical Education, Licensure and Hospitals, 1934.

Becker, E. R.—Coccidia and Coccidiosis. 1934.

Mayo Clinic—Collected Papers. 1934.

Southern Surgical Association—Transactions. 1934.

Washington Institute of Medicine. v. 5. 1934.

Wilder, R. M.—Primer for Diabetic Patients. 1934.

Schamberg, J. F.—Compend of Diseases of the Skin. 1934.

Jackson, Chevalier—Foreign Bodies in Air and Food Passages. 1934.

Sherman, H. C.—Food Products. 1933.

Loebel, Josef—Medicine. 1934.

Bogert, L. J.—Diet and Personality. 1934.

Heald, C. E.—Injuries and Sport. 1931.

Grinker, R. R.—Neurology. 1934.

Mary Imogene Bassett Hospital—Medical Miscellany. 1934.

American Academy of Political and Social Science—Medical Profession and the Public. 1934.

Dennis, F. S.—Selected Surgical Papers, 1876-1914. 2v. 1934.

U. S. Navy Dept.—Statistics of Diseases and Injuries in the U. S. Navy. 1933.

Committee on Cost of Medical Care—Miscellaneous Contributions. 1930-33.

U. S.—Labor Department—Maternal Mortality in 15 States. 1934.

Stahl, F. A.—Langhan's Cellule Aberrated. 1934.

Frederick L. Fenno, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

MEMBERSHIP RECORDS

We are anxious to include in the membership record of members of the Louisiana State Medical Society the medical services rendered in the United States Army. A great many of the questionnaires have been returned, and we are taking this means of asking those who have had such services to forward us a complete record of same. Those who have not answered can insert this information on the last page of the questionnaire. Please lend us your co-operation in this effort to maintain such valuable information by attending to this detail promptly.

P. T. Talbot, M. D.,
Secretary.

Tulane Centennial Clinics will be held on Thursday and Friday, December 6 and 7. At this time ward rounds, dry clinics, demonstrations, and lectures will be given in the Hutchinson and Richardson Memorial Buildings, Charity Hospital, Touro Infirmary, and the Eye, Ear, Nose and Throat Hospital. All Tulane Alumni are cordially invited.

CONCORDIA-CATAHOULA PARISH SOCIETY

The Concordia-Catahoula Bi-Parish Medical Society held its seventh regular meeting at Ferriday, Thursday evening, October 4.

It was unusually successful and an enjoyable meeting. There were visitors from Tensas Parish and a good delegation from the Adams County Medical Society came from over the river in Mississippi. Two very good papers were read, the essayists for the evening being Drs. Dicks and Sessions of Natchez. Dr. Dicks read a paper on "Eclampsia," dealing particularly with the handling of the preeclamptic state and Dr. Sessions' paper was on "Adhesions," calling particular attention to the care to be observed in their prevention. Both papers brought forth plenty of discussion, and thus closed an altogether successful meeting.

Dr. Jno. Schreiber, Sec.-Treas.

EAST AND WEST FELICIANA BI-PARISH MEDICAL SOCIETY

The Bi-Parish Medical Society was called to order in Dr. Shaw's Log Cabin Lodge by the Secretary. Dr. C. S. Miller was elected President protem. Minutes of previous meeting were read and adopted. Dr. J. J. Robert read a paper on "Surgical Treatment of Tuberculosis". The paper of Dr. Robert was freely and favorably discussed by members present. A vote of thanks was extended Dr. Robert for the excellent paper read before our Society. Resolutions on the death of Dr. J. A. Thames were read and adopted. A vote of thanks was given Dr. and Mrs. Shaw for their hospitality and superb entertainment. The repast furnished at the table could not be excelled. Members and guests present were Drs. Lea, Robert,

Shaw, Stafford, Toler, Robards, Sewell, Roberts, Tombs, Odom, and Miller; Mrs. Banner, Mrs. Roberts, Mrs. Shaw, Mrs. Sadler, and Mrs. Laws. The Society adjourned to meet in the Rist Hotel, Clinton, first Wednesday in December, at 7:30 p.m.

C. S. Miller, President.
E. M. Toler, Secretary.

EAST AND WEST FELICIANA

Resolutions adopted by the Bi-Parish (East and West Feliciana) Medical Society held at Clinton, Louisiana, October 3, 1934.

With a feeling of irreparable loss the Bi-Parish Medical Society bows its head in sorrow at the untimely taking of one of its most loyal and able members, Dr. John Allen Thames, on September 30, 1934. The son of Martha Kelly Thames and John F. Thames, he was born in Collins, Mississippi, March 12, 1882. He graduated from Tulane School of Medicine in 1908 and was surgeon for Natalbany Lumber Company at Kentwood and Natalbany for twenty-three years. He was a member of the Board of Administrators for East Louisiana State Hospital for six years, and was appointed a member of the Staff of that hospital in 1932. The valuable service as Staff Member was rendered until September 1, 1934, when he was appointed Superintendent of the hospital.

Dr. Thames was a member of the Baptist church, a Mason and Shriver, and also a member of Theta Kappa Psi Fraternity. He married Leola Bailey who died three years ago. He is survived by four sisters and three sons: DeLoach Thames, senior medical student Tulane, Louis Thames, academic student Tulane, and Allen Thames, high school student.

His relations with his associates in medicine were thoughtful and considerate, avoiding anything that might give pain or offense. He derived great pleasure in helping young internes and graduates. His professional attitude and sympathetic understanding of his patients were characteristic of his life in general. This was indicated after his death by numerous messages and floral offerings, expressing love and affection.

Now, be it resolved that we, the members of the Bi-Parish Medical Society express our sincerest regrets and deep sorrow at this sudden death, and that we offer our condolence and heartfelt sympathy to his family.

Be it further resolved that the family be furnished a copy of these resolutions, that one be spread upon the minutes of this Society, and one sent to the New Orleans Medical and Surgical Journal.

J. W. Lea, M. D.
Faye Stofford, M. D.
E. M. Robards, M. D.

FOURTH DISTRICT MEDICAL SOCIETY

A meeting of the Fourth District Medical Society was held October 2, 1934 at Shreveport. The subject of headaches was presented by Dr. Dean Duncan of Shreveport and Dr. C. M. Baker of Minden. Dr. T. B. Tooke of Belcher was elected president, Dr. W. J. Norfleet of Shreveport vice-president, Dr. P. D. Abramson of Shreveport secretary-treasurer. Dr. C. M. Baker of Minden was elected delegate to the State meeting and Dr. Dorf Bean of Shreveport alternate delegate.

NEWS ITEMS

Dr. Allan Eustis addressed the Second District Medical Society at their meeting held at Laplace, La., Thursday, October 18, 1934, on "Geriatics, a much neglected branch of Medicine."

Dr. Isidore Cohn attended the meeting of the Fifth District Medical Society of Georgia held at Atlanta Saturday, October 20, 1934, and addressed the group on "Masses of the Groin."

Dr. Nathan H. Polmer attended the meeting of the American Congress of Physical Therapy held at Philadelphia, Penna., during October. At that meeting Dr. Polmer read a paper entitled "Physical Measures in Thromboangiitis Obliterans" and was elected Secretary of the organization.

Dr. Walter J. Otis addressed the Mental Health Division of the National Confedence of Catholic Charities at their recent meeting held at Cincinnati, Ohio, on "Early Symptoms of Mental Hygiene Problems in Childhood."

Dr. A. A. Caire, Jr., addressed the meeting of the East Mississippi Medical Society held at Meridian, Miss., on October 3, 1934.

Dr. Charles J. Bloom addressed the meeting of the East Mississippi Medical Society held at Meridian, Miss., October 3, 1934 on "Communicable Diseases of Children".

SOUTHEASTERN BRANCH OF THE AMERICAN UROLOGICAL ASSOCIATION

The American Urological Association is now the largest urological association in the world, having about 1000 active members.

Recently, the American Urological Association has granted permission for the formation of a Southeastern Branch Society of the A. U. A., its members to reside in Alabama, Georgia, Florida, Louisiana, North Carolina, South Carolina, and Tennessee. There are seventy-seven urologists living in this area who are members of the American Urological Association.

The importance of the Branch Societies in the affairs of the National Association has been greatly increased by the recent adoption of an amendment to the Constitution and By-Laws, which makes it necessary for an applicant for membership in the A. U. A. to become first a member of his local Branch Society; only in very exceptional instances will this requirement be set aside.

The Southeastern Branch Society has been granted permission to have as active members not only those who are members of the A. U. A., but also urologists of exceptional qualification, who may not wish to join the A. U. A. Provision has also been made for an associate membership in the Branch Society to be composed of those who do not for some reason qualify for active membership but yet desire to attend the Society's meetings and participate in the discussions of urological problems.

The first meeting of the Southeastern Branch Society will be held in Atlanta, Georgia, December 7-8. Among those invited to present papers are Dr. Edwin Beer of New York, Dr. Dellinger Barney of Boston, Dr. William Braasch and Dr. Hugh Cabot of the Mayo Clinic, Dr. A. I. Folsom of Dallas, Dr. Herman Kretschmer of Chicago, Dr. Alexander Randall of Philadelphia, Dr. George Gilbert Smith of Boston, and Dr. Hugh Young of Baltimore.

Further information concerning the Society and the December meeting can be obtained from the Secretary, Dr. Earl Floyd, 478 Peachtree Street N. E., Atlanta, Georgia.

CENTRAL ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS

The Sixth Annual Meeting of The Central Association of Obstetricians and Gynecologists will be held at the Roosevelt Hotel in New Orleans on Thursday, Friday and Saturday, November 1, 2, and 3rd. The scientific sessions will be held each morning at the hotel. There will be a dry clinic conducted by Drs. C. Jeff Miller, H. W. Kostmayer and P. Graffagnino on Thursday afternoon and a joint meeting with the New Orleans Gynecological and Obstetrical Society on Thursday night. There are no registration fees and the medical profession is cordially invited to attend all sessions. Dr. E. D. Plass of Iowa City is President, Dr. Willard R. Cooke of Galveston is President-elect, Dr. Ralph A. Reis of Chicago is secretary-treasurer and Dr. H. Vernon Sims is general chairman of the Committees of the New Orleans Gynecological and Obstetrical Society.

MEETING OF THE N. S. P. B.

The Annual Conference of the National Society for the Prevention of Blindness will be held in New York City December 6-8, it is announced by Lewis H. Carris, Managing Director.

Dr. Edward Jackson of Denver, Colo., will deliver the principal address on the subject, "A Wide Basis for Blindness Prevention." Dr. Jackson was the first recipient, in 1925, of the Leslie Dana Gold Medal which is awarded annually for outstanding achievements in the prevention of blindness and conservation of vision.

INFECTIOUS DISEASES IN LOUISIANA

Dr. J. A. O'Hara, Epidemiologist for the State of Louisiana, has furnished us with the weekly morbidity reports for the State of Louisiana, which contain the following summarized information.

For the thirty-eighth week in the year ending September 22, there were reported the following diseases in double numbers: Forty-nine cases of pulmonary tuberculosis, 46 of malaria, 37 of syphilis, 30 of pneumonia, 22 of diphtheria, 19 of gonorrhea, 17 of cancer, 15 of typhoid fever, 13 of scarlet fever, 11 of measles, and 10 of whooping cough. One case was reported from each of several parishes, except DeSoto from which 3 cases of typhoid fever were reported and Orleans Parish from which 4 cases were listed. Two cases of undulant fever were reported this week, as was also one case of typhus fever. For the week ending September 29, malaria with 49 cases led all other reportable diseases. It was followed by 41 cases of pneumonia, 38 of gonorrhea, 27 of syphilis, 24 of cancer, 20 of pulmonary tuberculosis, and 12 of diphtheria. A case of typhus fever was reported from Caddo Parish and another one from Calcasieu.

For the week ending October 6, the following diseases were reported in double numbers: Thirty-eight cases of pulmonary tuberculosis, 37 of pneumonia, 35 of syphilis, 34 of malaria, 32 of cancer, 13 of typhoid fever, and 10 of diphtheria. The typhoid fever cases were dispersed throughout the State. Of the unusual diseases, one case of smallpox was reported from LaSalle Parish and one of undulant fever from Iberia and one from Orleans Parish.

For the week ending October 13, there were listed 93 cases of syphilis, 47 of malaria, 51 of gonorrhea, 2 of diphtheria, 19 of pneumonia, 13 each of scarlet fever and typhoid fever, 12 of tuberculosis, and 11 of cancer. Five of the 13 cases of typhoid fever were reported from Orleans Parish, 2 from DeSoto Parish, and the remaining cases from other parishes. One case of rabies was reported from West Baton Rouge Parish.

HEALTH OF NEW ORLEANS

The Department of Commerce, Bureau of Census, reports that for the week ending September 15 there occurred 146 deaths in the City of New

Orleans, divided 92 white and 54 colored, giving a death rate for the group as a whole of 15.8, for the white population 14.0 and for the negro 20.2. The infant mortality rate was extremely high this week, being 127, due largely to the rate of 163 among negro children. There was a marked decrease in the total number of deaths in the following week ending September 22. The death rate was 13.4 as a result of 124 deaths in the City. The white rate was 11.9 and the negro rate 17.2, with 78 deaths in the first group and 46 in the latter. Most of the negro infants who were going to die in New Orleans about this time had apparently selected the previous week in which to leave this world, because for the week ending September 22 the negro infant mortality rate was only 16. The rate of total deaths increased for the week ending September 29 as compared to the previous week. There were 141 deaths in the City, divided 80 white and 61 colored, with a rate for the three groups respectively of 15.3, 12.2, and 22.8. The infant mortality rate was 70, slightly under the average for the year 1932. The first week in October, which ended October 6, found 135 reported deaths in the City, giving a rate of 14.6. In the white group the total deaths were 80 with the rate of 12.2, and in the negro 55 with a rate of 20.6. The infant mortality rate had jumped up to 102. Again the considerable increase in infant mortality rate was due to the rate among negro infants, which was 147. The death rate for the whole city for the year 1934 is slightly above that of the year 1933. This year the rate for the first 40 weeks is 15.7, whereas in 1933 it was 15.3.

LILLY RESEARCH LABORATORIES FORMALLY OPENED

More than a thousand investigators and research workers were present at the formal opening of the new Lilly Research Laboratories at Indianapolis on October 11. The gathering of distinguished visitors representing many noted bodies and famous institutions in this and foreign countries as well, assembled in a mammoth tent erected for the occasion adjacent to the Lilly Laboratories.

Among the distinguished speakers of this occasion there were included Dr. Irving Langmuir, director of research for the General Electric Company, Sir Frederick Banting of Toronto, and Sir Henry Dale, director of the National Institute for Medical Research, London.

In the evening a banquet was tendered the out-of-town guests. Mr. J. K. Lilly served as toastmaster and responses were made by Sir Henry Dale; Dr. Elliott P. Joslin, of Boston; Dr. George R. Minot, of Boston; Dr. Frank R. Lillie, of Chicago; Dr. George H. Whipple, of Rochester, N. Y.; Dr. Carl Voegtlin, of Washington, D. C.; and Dr. G. H. A. Clowes, head of the Lilly Research Laboratories.

DR. JOHN ALLEN THAMES, JACKSON

Dr. John Allen Thames, Superintendent of the East Louisiana State Hospital for the Insane at Jackson, died suddenly of a heart attack on September 30, 1934, at the home of relatives in Harvey, La. Dr. Thames was born in 1882, in Collins, Miss. He graduated from Tulane University Medical School in 1908, and went to Tangipahoa Parish where he practiced for most of his life. He was formerly physician for the Natalbany Lumber Company at Natalbany. Dr. Thames was appointed to the Board of Supervisors of the East Louisiana State Hospital six years ago, and was named Superintendent of the hospital on September 1, 1934. He is survived by three sons.

WOMAN'S AUXILIARY TO LOUISIANA STATE MEDICAL SOCIETY

President, Mrs. T. Henry Watkins, Drew Park Drive, Lake Charles.

President-elect—Mrs. Herman B. Gessner, 119 Audubon Blvd., New Orleans.

Chairman Press and Publicity—Mrs. Robert T. Lucas, 535 Broadmoor Blvd., Shreveport.

JEFFERSON DAVIS PARISH

Mrs. R. R. Arceneaux, president, Welsh.

Mrs. L. E. Shirley, vice-pres., Jennings.

Mrs. F. W. Harrell, treasurer, Jennings.

Mrs. L. E. Shirley, Rec. Sec., Jennings.

Mrs. C. A. Martin, Corres. Sec. and Chairman of press and publicity, Jennings.

Mrs. G. W. Remage, Program Chairman.

Mrs. Morgan Smith, Philanthropy Chairman.

Mrs. R. S. Kramer, Education Chairman.

Jefferson Davis Auxiliary met on October 9 in a downpour of rain. Mrs. Arceneaux, the charming and indefatigable president of the group, sent the report since the Chairman of Press and Publicity, Mrs. C. A. Martin was absent because of serious illness. The Jefferson Davis Auxiliary has only seven members and one associate. If you will look at the official list above you will be privileged to observe the workings of a miracle. Every member of the Auxiliary is a serving, working member. I suspect the greenish hue of envy covers the face of many a president who reads that.

CALCASIEU PARISH

President, Mrs. Louis A. Hebert, Lake Charles.

President-elect, Mrs. S. F. Hatchette, Lake Charles.

Vice-president, Mrs. G. C. McKinney, Lake Charles.

Vice-president, Mrs. O. W. Moss, Lake Charles.

Recording Secretary, Mrs. W. P. Bordelon, Lake Charles.

Treasurer, Mrs. R. Marshall, Sulphur.

Parliamentarian, Mrs. S. F. Hatchette, Lake Charles, chairman.

Hygeia, Mrs. C. V. Hatchette.

Education, Mrs. L. Z. Kushner.

Telephone, Mrs. H. B. White.

Public Relations, Mrs. C. V. Hatchette.

Philanthropy, Mrs. J. D. Tutey.

Calcasieu's president, Mrs. Louis Hebert, went on a trip out through the parish trying to increase membership and stimulate interest in the Auxiliary. The first meeting was to start the year off in the interest of the Health Examination. Dr. Louis A. Hebert lectured on "The Wisdom of an Annual Physical Examination." The programs are planned to alternate with book reviews, musicales, current events and topics from *Hygeia*, round table discussions, and a few social entertainments. They hint at a fascinating project regarding the Fund for Indigent Physicians too, but that news will be published later.

Calcasieu was smart enough to get *Hygeia* included by the school board in the school budget. The Auxiliary has sponsored for several years an essay contest in the seventh grade, the subject based on Hygeia material, and the Auxiliary has given the award. I recall with great happiness the excellence of the winning essay which was on exhibit at the convention in Shreveport in the spring.

SHREVEPORT

President, Mrs. L. Wailes Gorton.

President-elect, Mrs. Fred G. Ellis.

1st Vice-president, Mrs. Samuel W. Kerlin.

2nd Vice-president, Mrs. L. Terrell Baker.

Recording Secretary, Mrs. James E. Rooks.

Corresponding Secretary, Mrs. Thomas Smith.

Publicity Secretary, Mrs. Johnson R. Anderson.

Treasurer, Mrs. Dean H. Duncan.

Parliamentarian, Mrs. Robert T. Lucas.

Advisory Board:

Dr. Samuel W. Kerlin.

Dr. Broox C. Garrett.

Dr. Frank Walke.

Dr. Paul D. Abramson.

Dr. D. R. McIntyre.

Chairmen of standing committees:

Program, Mrs. M. D. Hargrove.

Hostesses, Mrs. J. T. Crebbin.

Hygeia, Mrs. R. H. Riggs.

Public Relations, Mrs. B. C. Garrett.

Membership and Telephone, Mrs. W. M. Scott.

Finance, Mrs. Charles R. Gowen.

Courtesy, Mrs. S. W. Kerlin.

Preventorium, Mrs. W. R. Harwell.

Archives and History, Mrs. C. E. Rew.

Legislation, Mrs. A. A. Herold.

The Shreveport Auxiliary will continue its work at the Pines Preventorium, a home for potentially tuberculous children. Members of the auxiliary give parties or some entertainment for the children twice a month. The Preventorium Committee acting under the skillful guidance of its chairman, Mrs. W. R. Harwell, administers an educational fund for the Preventorium, a fund raised by Auxiliary members through the button seal sale in the public schools.

The Fund for Indigent Physicians and their Dependents was started last year, and a percent from the budget will be added from time to time.

The first meeting of the year was a bridge party given at the Shrine Club on Cross Lake.

TRI STATE LUNCHEON

The doctors' wives attending the Tri State Medical Society meeting in Shreveport were guests of the Shreveport Auxiliary for luncheon at the Junior League Style Revue Wednesday. For six years now these Tri State luncheons have been the scene of hearty good fellowship and much merry making, not to mention the floral decorations, the food and the lovely frocks. Mrs. L. Wailes Gorton, president of Shreveport's Auxiliary, presided at the luncheon. Guests of chief distinction were Mrs. Preston Hunt of Texarkana who is president of the Texas Auxiliary and Mrs. Barton A. Rhinehart of Little Rock, past president of the Arkansas Auxiliary, both of whom made very charming speeches. Others guests were: Mesdames C. H. Thompson, Denver, Colo.; W. R. Cavette, Hosston, La.; F. W. Youmans, Lewisville, Ark.; E. L. Beck, Texarkana; L. H. Lanier, Texarkana; E. M. Watts, Texarkana; N. P. Hanner, Atlanta, Tex.; J. B. Baldwin, Marshall, Tex., R. G. Grandbery, Marshall, Tex.; Jas. F. Rosborough, Marshall, F. S. Littlejohn, Marshall, Henry Claverie, New Orleans; Bruce McMillan, Overton, Tex.; H. S. Cotten, Memphis, Tenn.; Betty Harmon, Paris, France; Roy Carl Young, Covington, La.

ORLEANS PARISH

Mrs. Chaille Jamison, President.

Mrs. George D. Feldner, Chairman of Press and Publicity.

Contact Committee from Orleans Parish Medical Society:

Dr. Edward S. Hatch, chairman.

Dr. Frances E. Le Jeune.

Dr. Jules Myron Davidson.

The Woman's Auxiliary to the Orleans Parish Medical Society held the first Fall meeting of its Session on Wednesday, October 10, at the Orleans Club. The attendance was rather small—only 92—but owing to the fact that so many folks are still away on vacations, and October is the "moving month" for so many Orleanians, and what with "Fall house cleaning" in the air besides, we feel sure these are the reasons why. Our total paid-

up membership was 184, the Treasurer reported at this meeting.

As is usual at our first meeting, almost the entire time was devoted to the introduction of all Committee Chairmen, and their sub-committees, which we find goes over in a big way with the membership at large, as it gives them an opportunity to really know the working committees.

Through the summer there was very little for us to do, of course, and the only real news we have to report for this month is the collection of six additional suits which we have added to those we had left over from last year for Medical Students. (I believe you are already familiar with the work of this particular committee which comes under the Group of Philanthropic.)

We are actively interested in periodic examinations and the Fund for Indigent Physicians. We are already talking "health examinations" to our members and plan to have a physician speak before our organization again on the subject. About one hundred and twenty-five of our members had physical examinations last year and we hope to do as well this year. Mrs. S. M. Blackshear is in charge of this work and is busy with her campaign now. Just what form of entertainment we will sponsor for the Indigent Physician's Fund has not been decided on as yet, but we expect to concentrate on one large affair, possibly in the Spring, and as soon as any plans are made, you will hear from us. Mrs. Jules Myron Davidson is Chairman of this Committee. We have $312.30 in our bank to the credit of this fund which was raised by the Orleans Auxiliary last year, so there is a great deal to do if we expect to do anything like what was accomplished in 1933-1934. It is a high standard we inherited, but we are going to do our best to live up to it.

After a very delightful musical program rendered by a young local pianist, everyone adjourned to the dining-room where a most delightful hour was enjoyed over the tea-cups, as all first meetings are so thoroughly enjoyed after a vacation of so many months of not seeing each other and hearing all about trips abroad and here and there and everywhere.

The Thursday preceeding our meeting, an announcement as to the date, time, place and program is broadcast over one of our local radio stations—WDSU, by a Mrs. Tucker who also makes announcements for other civic groups and women's organizations. Then the day after our meeting, Mrs. Tucker gives a short talk as to what we did and if we plan any special work, she talks about that too.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

CALENDAR

SOCIETY MEETINGS

ALCORN COUNTY MEDICAL SOCIETY: Third Thursday of each month, Club Room of Waldren Hotel, Clarksdale, 7 P. M.

ADAMS COUNTY MEDICAL SOCIETY: Third Tuesday of each month, Natchez Hospital, 7 P. M.

CENTRAL MEDICAL SOCIETY: First Tuesday of each month, Robert E. Lee Hotel, Jackson, 7 P. M.

CHICKASAW COUNTY MEDICAL SOCIETY: Last Thursday of each month, Houston Hospital, Houston.

CLAIBORNE COUNTY MEDICAL SOCIETY:

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY: November 10, Hotel Alcazar, Clarksdale.

COAHOMA COUNTY MEDICAL SOCIETY: Second Wednesday of each month, Clarksdale Hospital.

DELTA MEDICAL SOCIETY: Second Wednesday of April and November, 2 P. M. Next meeting, Greenwood, April 10, 1935.

DESOTO COUNTY MEDICAL SOCIETY: First Monday of January, April, July and October, Hernando, 10 A. M.

EAST MISSISSIPPI MEDICAL SOCIETY: Third Thursday in February, April, June, August, October and December, Meridian, 3 P. M.

HARRISON-STONE-HANCOCK COUNTIES MEDICAL SOCIETY: First Wednesday of each month, Bay St. Louis, Pass Christian, Gulfport or Biloxi, 7:30 P. M.

HOMOCHITTO MEDICAL SOCIETY: Second Thursday of January, March, July and October, Natchez, 2 P. M.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY: Second Tuesday of each month, Elks Club, Vicksurg, 7 P. M.

JACKSON COUNTY MEDICAL SOCIETY: Second Thursday of March, June, September and December, Jackson County Hospital, Pascagoula, 7:30 P. M.

MONROE COUNTY MEDICAL SOCIETY: First Monday of each month, alternates between Aberdeen and Amory.

NORTH MISSISSIPPI MEDICAL SOCIETY: First Wednesday of October, January, April and July.

NORTHEAST MISSISSIPPI THIRTEEN COUNTIES MEDICAL SOCIETY:

PIKE COUNTY MEDICAL SOCIETY: First Thursday of each month, McComb, 7 P. M.

SOUTH MISSISSIPPI MEDICAL SOCIETY:

Second Thursday in September, December, March and June, alternates between Hattiesburg and Laurel, 3 P. M.

TATE COUNTY MEDICAL SOCIETY: Third Wednesday of each month, Senatobia, 8 P. M.

TRI-COUNTY MEDICAL SOCIETY: Second Tuesday in March, June, September and December, Wesson, Tylertown, Monticello or Brookhaven, 12:30 P. M.

WEBSTER COUNTY MEDICAL SOCIETY: Last Thursday of each month, Houston Hospital, Houston.

WINONA DISTRICT MEDICAL SOCIETY: December 18, 1934, Wisteria Hotel, Winona, 12:30 P. M.

MISSISSIPPI STATE HOSPITAL ASSOCIATION: Biloxi, May 13, 1935.

MISSISSIPPI STATE MEDICAL ASSOCIATION: Biloxi, May 14, 15, 16, 1934.

LONGEST IN ACTIVE PRACTICE

CHICKASAW COUNTY—Dr. J. S. Evans, Houston, licensed 1882; Dr. W. C. Walker, Houlka, licensed 1882.

PONTOTOC COUNTY—Dr. Lee O. Carruth, Chesterville, licensed 1882.

WARREN COUNTY—Dr. J. S. Austin, Oak Ridge, licensed 1882; Dr. H. H. Haralson, Vicksburg, licensed 1882.

LEFLORE COUNTY—Dr. C. N. D. Campbell, Greenwood, licensed 1884.

MONTGOMERY COUNTY—Dr. C. P. Hemphill, Sweatman, licensed 1884.

GRENADA COUNTY—Dr. T. J. Brown, Grenada, licensed 1886.

JACKSON COUNTY—Dr. A. P. McArthur, Moss Point, licensed 1886.

COAHOMA COUNTY—Dr. James William Gray, Clarksdale, licensed 1887.

ISSAQUENA COUNTY—Dr. W. H. Scudder, Mayersville, licensed 1887.

ALCORN COUNTY—Dr. William W. McRae, Corinth, licensed 1888.

COPIAH COUNTY—Dr. W. L. Little, Wesson, licensed 1888.

MONROE COUNTY—Dr. G. S. Bryan, Amory, licensed 1889.

FORREST—Dr. J. R. Jackson, Hattiesburg, licensed 1890.

TIPPAH COUNTY—Dr. C. M. Murry, Ripley, licensed 1890.

BENTON COUNTY—Dr. Benjamin Strong, Lamar, licensed 1891.

LEE COUNTY—Dr. William C. Spencer, Tupelo, licensed 1891.

WEBSTER COUNTY—Dr. E. F. Arnold, Bellefontaine, licensed 1891.

ADAMS COUNTY—Dr. Philip Beekman, Natchez, licensed 1892.

PEARL RIVER COUNTY—Dr. V. B. Martin, Picayune, licensed 1892.

DE SOTO COUNTY—Dr. Angus L. Emerson, Hernando, licensed 1893.

PIKE COUNTY—Dr. J. E. Stennis, McComb, licensed 1893.

ATTALA COUNTY—Dr. J. W. Comfort, Kosciusko, licensed 1895.

PRENTISS COUNTY—Dr. W. V. Davis, Booneville, licensed 1895.

HOLMES COUNTY—Dr. A. M. Doty, Lexington, licensed 1897.

SIMPSON COUNTY—Dr. E. L. Walker, Magee, licensed 1899.

ARE THERE OTHERS STILL IN ACTIVE SERVICE WITH LONGER SERVICE RECORDS?

MEDICAL EDUCATION EXTENSION WORK

On January 1, 1935, the medical education extension work will begin in Mississippi. This is made possible by the grant made by the Mississippi State Medical Association at its meeting last spring in Natchez, and the grants made by Tulane University, the Commonwealth Fund, and the Mississippi State Board of Health. Dr. M. E. Lapham, who has just concluded a two-year program in Vriginia, will give lectures and be available for conferences and consultation on obstetrics.

The committee on medical education extension, composed of the president and secretary of the State Medical Association, deans of the Tulane undergraduate and graduate schools of medicine, and the president and secretary of the State Board of Health, will meet within a short while for a conference. After that, the organizer will begin visiting the physicians of the State to enroll those who wish to attend the lectures.

Felix J. Underwood.

SIXTY YEARS AGO IN MEDICINE

(From the Transactions of the Mississippi State Medical Association, at the Seventh Annual Session, held at Columbus, April 1, 2 and 3, 1874).

"Mr. President, it will be a source of much gratification to me, if in my endeavor to fasten upon the minds of my professional brethren, the idea of Propter Ovarium, in place of Propter Uterum, as the more practical and scientific, for as a legitimate sequence of that idea, will be the abandonment of the indiscriminate use of the speculum, to say nothing of the digit. With us, sir, here in the South, where it is not a tithe of the practice of the North, it seems, the day is not far off, unless the tendency is stayed, when no practitioner,* much less a Gynoecologist, will be content, unless he not only put his hand on the genitalia, but must forsooth, use the speculum. I do not mean to say that they should not be used; for in many cases the digit, sound, and speculum, are

indispensable; but that every case of Leucorrhoea to which out attention is called must be taken as a symptom of a serious malady, and nothing will do but a vaginal examination, I do condemn. Why, the habit is becoming so common that modest women are afraid to call the family physician's attention to a leucorrhoeal discharge, with which she may be suffering, for fear of the doctor's lounge, and speculum. If from no other motive, we should as Gynoecologist, resist such means, until all others of diagnosis are exhausted, so we may escape the charge which is too frequently laid at our door, namely: we use these means either to magnify the case so as to increase the fee, and gain renown; or secure the case, so having once made a digital and specular examination no other doctor can take the patient away. Such forced relations, no respectable doctor will desire; as a body of men, none can be found, who value more highly, that relation of the sexes, which a wise Providence has created; a power secret and marvelous which underlies the purest enjoyment, and the highest usefulness of social life. To preserve the virtue of woman intact, is our sacred duty, and should be our watchful care. I fear the doctor has too often, in his zeal for a particular surgical treatment of uterine maladies, broken down the barriers of modesty, and assisted by his manipulations and frequent examinations, in making his patient feel less pure, than she was, and the step then to lost virtue, is too short. Some of you may discard this idea, but can any of you say, it tends to virtue; or to happiness and health."—Report on Improvements in the Treatment of Uterine Diseases, by B. A. Vaughan, M. D., Columbus.

*U. S. Med. Journal.

"I am happy to state that this mode of medication (*hypodermic*) still commands the confidence and high esteem of the great body of our profession, especially the more enlightened and progressive among us—being regarded by them as one of the great improvements in modern medicine, and an inestimable boon to suffering humanity. At the same time the important fact is remembered, that like most of the good things of this life it is alike potent for evil as well as good, when perverted or abused. By too many physicians subcutaneous medication is a perfect hobby, and the convenient little syringe is drawn out in all cases of pain, perverted nervous action, and wakefulness, without regard to consequences or applicability; but these are becoming less every year as knowledge of its proper use extends, and soon the indications for its use and real value will be fixed and limited, when it will take its place, permanently among the most reliable resources of our art, with fewer dangers and abuses than are common to it now."

"It is generally agreed that medicines injected under the skin act upon the whole system alike, and that it is unnecessary to introduce them over the seat of pain and disease, except in cases of circumscribed neuralgia in certain localities, or to dissect tumors. Different regions are prepared for the operation; but this is of small moment, so the skin is thin, veins scarce, and the part not near a joint, or where scar would be exposed. Midway between the shoulder and elbow of the left arm is the usual place selected; or the axilla, sternum and outer surface of the thighs. I much prefer the region just over the manubrium, or on either side and above it; here the skin is usually thin and flaccid, superficial veins are small and sparse, less irritation is produced, and it is easy of access. But in the male the scrotum is the best place I have ever tried; here all of the superficial veins are before your eyes, the skin is the thinnest of the body, soft and distensible, without the least disposition to the formation of abscesses, and leaves no cicatrix or discoloration. Patients who have consented to my using it here prefer it to all other places. I have injected one man's scrotum near one hundred times, and no trouble remains."—Report on Hypodermic Medication, by S. V. D. Hill, M. D., Macon.

UNPUBLISHED HISTORY

I am sending you, enclosed, a bit of unpublished history of the origin of the Mississippi State Medical Association. It is obvious that Doctor Howard did not have it, since he did not mention it in his history. I recently came into possession of it through Dr. W. A. Evans, who referred me to Doctor Stovall, a former Mississippian from Sardis, now Director of the Wisconsin State Laboratory of Hygiene, at Madison, Wis. This copy is taken from a copy of "The Sunny South," published in Aberdeen on December 1, 1856.

You will observe that there was already organized, and at work the "North Mississippi Medical Society," and that this Society issued the call. My father is among the members of this Society. The copy of the paper, "The Sunny South," referred to above, is in the files of the Public Library at Madison, Wisconsin. I am sure the members of our Association will enjoy reading this bit of history, I shall be glad to have it published in the next issue of our official organ, the "New Orleans Medical and Surgical Journal."

With best wishes,

P. W. Rowland.

The following is taken verbatim from a paper, "The Sunny South," published in the city of Aberdeen, Monroe County, on the first day of December, 1856, and now on file in the public library in the city of Madison, Wisconsin:

STATE MEDICAL ASSOCIATION

The undersigned propose to meet their professional brethren throughout the State, in Jackson,

on Monday, the Fifteenth day of December next, for the purpose of forming a State Medical Association, and to nominate Delegates to the American Medical Association, to be held in Nashville, Tenn., in May, 1857.

Newspapers in the State, favorable to the enterprise will please copy.

Hinds County, Mississippi.—Wm. Jills, M. D.; M. S. Craft, M. D.; G. W. Russell, M. D.; P. T. Boley, M. D.; G. F. Hobson, M. D.; W. W. Dinine, M. D.; M. W. Boyd, M. D.; C. Humphries, M. D.; A. B. Cabuis, M. D.; W. S. Langly, M. D.; Jos. Holey, M. D.; S. C. Farrar, M. D.; M. C. Russell, M. D.; Edw'd Pickett, M. D.; L. C. Pynchon, M. D.; F. White, M. D.; W. E. Brickell, M. D.; G. R. Birchett, M. D.; G. R. Buchner, M. D.; G. T. Birchett, M. D.; T. J. Harper, M. D.; H. H. Hubbard, M. D.; A. L. C. Magruder, M. D.; W. T. Balfour, M. D.

Carroll County, Mississippi.—W. M. Stansburry M. D.; W. W. Hart, M. D.; J. A. J. Askew, M. D.; J. W. Sanders, M. D.

Adams County, Mississippi.—J. S. Murrey, M. D.; John C. Inge, M. D.; W. S. Jones, M. D.; L. P. Blackburn, M. D.; E. M. Blackburn, M. D.

Madison County, Mississippi.—W. M. Fowler, M. D.; W. H. Dudley, M. D.; D. D. Martin, M. D.; W. B. Harvey, M. D.; J. R. Barnett, M. D.; W. J. Lee, M. D.; E. Lotham, M. D.; A. T. Semmes, M. D.; J. P. Marshall, M. D.

Warren County, Mississippi.—R. W. Mitchell, M. D.; G. H. Cromp, M. D.

Attalla County, Mississippi.—O. Lewis, M. D.; W. C. Red, M. D.; C. B. Calloway, M. D.

Yazoo County, Mississippi.—J. W. Barnett, M. D.; W. S. Wright, M. D.; W. B. Kidd ,M. D.; D. J. H. Wilson, M. D.; W. J. Leake, M. D.; H. Yandell, M. D.; Finnacane & Tuttle, M. Ds; W M. Yandell, M. D.; W. Y. Gadberry, M. D.; B. Yandell, M. D.; J. F. Green, M. D.; W. A. L. Potts, M. D.; M. G. Davis, M D.; E. S. McGehee, M. D.; D. B. R. Holmes, M. D.

Members of the North Mississippi Medical Society, Aberdeen, Monroe County: W. H. Basset, M. D.; John Bean, M. D.; G. S. Bryant, M. D.; R. H. Dalton, M. D.; A. L. Dowd, M. D.; F. H. Evans, M. D.; T. Gates, M. D.; B. L. Hatch, M. D.; J. M. Heard, M. D.; John L. Lowe, M. D.; S. L. Paine, M. D.; W. B. Rowland, M. D.; E. H. Strong, M. D.; J. L. Tindall, Jr., M. D.; L. M. Wasson, M. D.; W. A. Thompson, M. D.

MISSISSIPPI STATE HOSPITAL ASSOCIATION

President B. B. Philpot, Houston, of the Mississippi State Hospital Association, has announced standing committees for the current year as follows:

Community Hospitals: Dr. J. R. Hill, Corinth, Chairman; Mr. A. H. Koerper, Vicksburg; Dr. W. H. Sutherland, Booneville; Dr. George A. Brown, Water Valley; Dr. John C. Culley, Oxford; Mrs. J. Oridge, R. N., Lexington; Dr. C. H. Harrison, Philadelphia; Dr. F. G. Riley, Meridian.

Legislation: Dr. Felix J. Underwood, Jackson, Chairman; Dr. W. H. Anderson, Booneville; Dr. K. T. Klein, Meridian; Mr. B. T. Whitfield, Corinth; Dr. M. D. Ratcliff, McComb; Miss Mary E. Cook, R. N., Tupelo; Dr. Henry Boswell, Sanatorium; Dr. J. W. Moody, Charleston; Dr. E. S. Bramlett, Oxford.

Charity Hospitals: Dr. G. Lamar Arrington, Meridian, Chairman; Dr. L. W. Brock, McComb; Dr. B. E. Martin, Vicksburg; Rev. H. Ogden, Hattiesburg; Mrs. Hattie G. Bauer, Natchez; Mr. C. C. Day, Aberdeen; Rev. Wayne Alliston, Jackson.

Insane Hospitals: Dr. J. M. Acker, Jr., Jackson, Chairman; Dr. H. Lowry Rush Meridian; Dr. George E. Adkins, Jackson; Dr. F. B. Long, Starkville; Dr. W. W. McRae, Corinth; Dr. H. N. Mayes, New Albany.

Membership: Dr. E. Leroy Wilkins, Clarkedale, Chairman; Dr. Thomas Wolford, Columbia; Miss Mary H. Trigg, R. N., Greenwood; Dr. Omar Simmons, Newton; Dr. W. W. Crawford, Hattiesburg; Miss Sue Collins, R. N., Biloxi; Dr. F. P. Ivy, West Point.

Public Relations: Dr. V. B. Martin, Picayune, Chairman; Mrs. Maud E. Varnado, R. N., Laurel; Dr. P. L. Fite, Columbus; Dr. E. C. Parker, Gulfport; Dr. C. E. Catchings, Woodville.

Minimum Standardsó Dr. W. Jeff Anderson, Meridian, Chairman; Miss Mary E. Dorsey, R. N., Greenville; Dr. C. M. Speck, New Albany; Dr. L. B. Morris, Macon; Dr. E. W. Holmes, Winona.

Nurses and Nursing: Dr. A. Street, Vicksburg, Chairman; Dr. A. M. McCarthy, Electric Mills; Miss Kate Lou Lord, R. N.; Hattiesburg; Mrs. E. M. Bee, Brookhaven; Dr. M. Q. Ewing, Amory; Dr. W. W. Diamond, Magee.

Constitution and Ey-laws: Dr. W. H. Frizell, Brookhaven, Chairman; Dr. T. M. Dye, Clarksdale; Dr. R. D. Sessions, Natchez.

Publication: Dr. Leon S. Lippincott, Vicksburg, Chairman; Miss Kate Lou Lord, R. N., Hattiesburg; Dr. J. K. Avent, Granada; Dr. W. H. Anderson, Booneville.

Committees will work under the direction and be responsible to the members of the Board of Directors, as follows:

Dr. H. A. Gamble, Greenville—Legislation; Public Relations; Membership.

Dr. Leon S. Lippincott, Vicksburg—Publication.

Dr. J. Gould Gardner, Columbia—Community Hospitals; Minimum Standards; Insane Hospitals.

Dr. R. J. Field, Centreville—Charity Hospitals; Nurses and Nursing; Constitution and By-Laws.

MISSISSIPPI STATE HOSPITAL ASSOCIATION

At this time of discussion of nurses training and schools of nursing, of the graduate nurse versus the student nurse, the figures gathered this

year by the Mississippi State Hopital Association or from 29 hospital members and presented by the Committee on Nurses and Nursing at the annual meeting, are of interest:

SCHOOLS OF NURSING—29 HOSPITALS REPORTING

Beds	Bassinets	Average Number Patients	Total Patients	Numb'r of Students	Numb'r Regist'd Nurses
45	5	9	615	11	1
50	8		612	8	2
25	4	12	314	3	3
35	3	18	682	12	3
28	4	14	384	10	3
35	5	16	459	5	2
30	3	11	551	8	1
38	12	10	675	8	1
50	6	10	397	9	2
40	2	14	540	10	2
25	6		385	5	1
56	12	21	1,560	25	2
100	14	40	1,553	25	6
60	6	19	1,007	14	1
50	6	14	1,028	12	3
26	2		953	6	2
25	2	5	340	6	1
60	5	9	322	10	1
100	8		2,310	24	3
55	12	15	794	12	3
75	12	17	1,162	18	3
50	7	15	583	10	7
50	1	7	363	6	1
30	5	11	746	9	2
52	5	15	660	12	4
60	15	15	576	8	7
25	2		241	3	2
35	2	6	380	7	2
75	6	32	1,405	34	4

In 29 hospitals maintaining schools of nursing, there were a total of 1,385 beds and 180 bassinets, an average of 48 beds and 6 bassinets per hospital.

In 24 hospitals the average daily number of patients was 15; the smallest number 5, the largest number 40.

Twenty-nine hospitals had a total of 21,597 patients for the year; smallest number 241, largest number 2,310, average 745.

Twenty-nine hospitals had a total of 330 student nurses; smallest number 3, largest number 34, average 11.

Six hospitals had more student nurses than average number of patients.

All of the above figures are similar to those for the year of 1932.

HINTS

IMPORTANT FACTORS IN THE RECOVERY OF B. TYPHOSUS FROM FECES

B. Typhosus has been isolated from 35 of 2,234 feces cultures received since September, 1933. Twenty-eight of the 95 were from cases and the remaining 67 were isolated from contact carriers or food handlers. Attention is called to the advantage of lithium chloride Endo medium and the importance of repeated plating of the specimens.

Many typhoid bacilli may be present in the specimen and yet their demonstration is impossible on ordinary plating media, owing to the rapid growth of numeruos other bacteria which prevents the development of the typhoid colonies. Lithium chloride in Endo agar, at the concentration of 0.5 per cent, almost completely prevents the development of colonies of B. coli. Not only is there a decrease in the number of lactose-fermenting colonies, but the typhoid colonies show an equally surprising increase. Endo and lithium chloride Endo media have been used in parallel on all feces specimens received. The results are given in the following table. The lithium Endo yielded 95 positives against 64 positives with plain Endo medium. If plain Endo had been the only medium used for isolation, one-third of the 95 positives would have been reported negative.

Comparison of Plain Endo and Lithium Chloride Endo Media.

Medium	Hours after being received in Laboratory		
	24	48	72
Plain Endo	47	13	3*
Li Cl	70	16	9

The importance of repeated plating from specimens of feces is also shown in the above table. Particularly is this true when the original number of typhoid bacilli are small and a progressive diminution of the fecal flora is taking place. Seventy of the 95 positives were isolated from the first day's plating, positive cultures were obtained from 16 more on the second plating, and the third day's plating produced nine which had been negative on the two preceding days. In other words, about 26 per cent would have been missed had only one attempt at isolation been made.

Attention is called to three positive platings found on plain Endo medium after 72 hours. Two of the three platings were positive on lithium chloride Endo medium after 24 hours, 48 hours earlier.

Catherine R. Mayfield, Bacteriologist,
Epidemiological Unit,
Mississippi State Board of Health.

MISSISSIPPI STATE BOARD OF HEALTH

The Copiah County Board of Supervisors made an appropriation at the September meeting for the establishment of a full-time health department. The citizens of Copiah County, one of our most prosperous counties, went before the supervisors and got the appropriation. Dr. J. T. Googe, who has just received his Certificate in Public Health at Harvard University, will be the full-time di-

rector. Mrs. Connie Higdon is the public health nurse.

In recent weeks, the State Board of Health has received communications from the following places, asking for physicians: McCall Creek, Franklin County, and Puckett and Johns, communities in Rankin County.

Felix J. Underwood.

SECOND COUNCILOR DISTRICT

We are glad to know that President E. C. Parker is much better and hope for a continued improvement.

This district is in a good condition. Our per centage of membership is the best in the state. Our local secretaries are active.

We would like again to urge every county editor to report monthly to the columns of our section of the New Orleans Medical and Surgical Journal. Dr. Leon S. Lippincott, our chief editor, is doing a remarkable work.

L. L. Minor.

ADAMS COUNTY MEDICAL SOCIETY

The regular monthly meeting of the Adams County Medical Society was held at the Natchez Hospital on September 18, at 7:00 p. m., with ten members attending.

Dr. J. S. Ullman presented a case of hemophilia complicating severe second degree burns treated with theelin and amertan. He also presented a case of fracture of the pelvis treated by the Conwell hammock method.

Dr. E. E. Benoist presented a case of foetal abnormality, with demonstration of the gross specimen.

L. S. Gaudet.

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY

The Clarksdale and Six Counties Medical Society will hold its sixty-fifth semi-annual meeting in Clarksdale on November 10. There will be an afternoon session of business and scientific nature, and an evening session, beginning with a banquet at the Alcazar Hotel at seven o'clock and entertainment of a social nature.

Dr. L. H. Brevard, Dundee, is president and Dr. E. LeRoy Wilkins, Clarksdale, is acting secretary in the absence of Dr. V. B. Harrison.

A proposed merger of the Clarksdale and Six Counties Society with the Delta Society, forming an all-Delta group, has fallen through for the present, at least. It seems that the Delta Society desired to form a general group of "hyphenated counties" society, with full official or political powers and be recognized as such by the State Association and the Clarksdale and Six Counties bunch desires the union to become one for social and scientific purposes only, believing that the status of the "hyphenated county societies" was not settled and would probably become obsolete after the next meeting of the State Association, and that the county units would become the only official, political, and recognized bodies of the State Association, with the groups functinoing only as social and scientific bodies. The proposed constitutional change is now "on the table" of the State Association where it must repose for the year and will come up at the 1935 session.

E. Leroy Wilkins.

COAHOMA COUNTY MEDICAL SOCIETY

The Coahoma County Medical Society and Clarksdale Hospital staff met in regular session at the hospital on October 10 with a good attendance.

Dr. D. H. Griffin read the only prepared paper, which was, in a general way, a plea for more careful examination of the teeth and the enlistment of the dentist in our work of making diagnoses, particularly in conditions about the head and neck. He also gave case reports.

Case reports were given by Drs. J. A. Slack, Friars Point; J. L. Levy, I. P. Carr, and E. LeRoy Wilkins, Clarksdale.

Dr. N. C. Knight, who has taken over the work of the county health unit, in the absence of Dr. V. E. Harrison who is in Johns Hopkins for a special course in public health work, was present and introduced. Dr. Knight made a brief talk explaining his plans for the work and offering his co-operation and soliciting a continuation of the co-operation that had in the past been accorded the unit by the physicians of the county.

Dr. T. M. Dye is acting secretary in the absence of Dr. Harrison.

There will be no meeting of the staff in November so as not to conflict with the meeting of the Clarksdale and Six Counties Society on November 14.

E. Leroy Wilkins.

DELTA MEDICAL SOCIETY

The Delta Medical Society held its semi-annual meeting in Greenville, October 10. One of the largest attendances ever was present. The scientific program was exceptionally good and consumed the entire afternoon. The entertainment feature held that night was quite unique and unusual. A Nite Club entertainment was given with dinner, dancing and a most enjoyable high class "Floor Show."

J. G. Archer.

DELTA MEDICAL SOCIETY

At the meeting of the Delta Medical Society at Greenville, October 10, the following officers were elected:

President—Dr. Paul G. Gamble, Greenville.

Vice-Presidents—Bolivar, Dr. Walter Merritt, Cleveland; Humphreys, Dr. J. W. Jackson, Belzoni; Leflore, Dr. L. B. Otken, Greenwood; Washington, Dr. R. C. Finlay, Glen Allen; Sunflower, Dr. W. H. Weeks, Doddsville.

Secretary-Treasurer—Dr. F. M. Acree, Greenville.

Delegates to the Mississippi Stat Medical Association—Bolivar, Dr. E. R. McLean, Cleveland; Humphreys, Dr. J. C. Higdon, Belzoni; Leflore, Dr. G. Y. Gillespie, Jr., Greenwood; Sunflower, Dr. W. S. Wasson Moorhead; Washington, Dr. John G. Archer, Greenville.

EAST MISSISSIPPI MEDICAL SOCIETY

A two-day postgraduate assembly was held at the Lamar Hotel, Meridian, October 3 and 4. The program follows:

October 3:

9:00 A. M. The Heart.—Dr. J. M. Bamber, New Orleans, La.

10:00 A. M. Communicable Diseases in Childhood.—Dr. Chas. J. Bloom, New Orleans, La.

11:00 A. M. Diseases of the Lungs.—Dr. W. D. Hickerson, Sanatorium.

2:00 P. M. Communicable Diseases in Childhood.—Dr. Bloom.

3:00 P. M. The Toxic Heart.—Dr. Bamber.

4:00 P. M. Hay Fever and Asthma.—Dr. Ray M. Balyeat, Oklahoma City, Okla.

6:00 P. M.—BANQUET (Dutch), Lamar Hotel.

October 4:

9:00 A. M. Allergic Diseases.—Dr. Balyeat.

10:00 A. M. Gastro-Intestinal Diseases.—Dr. J. S. McLester, Birmingham, Ala.

11:00 A. M. Obstetrics.—Dr. Arthur J. Caire, Jr., New Orleans, La.

2:00 P. M. Diseases of the Lung.—Dr. Hickerson.

3:00 P. M. Gastro-Intestinal Diseases.—Dr. McLester.

4:00 P. M. Obstetrics.—Dr. Caire.

Leslie B. Rush.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

A regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Elks Club, Vicksburg, October 9, with fourteen members and five guests present. After a supper served at 7 P. M., the following scientific program was presented:

1. Experience With Atabrin and Plasmochin.—Dr. D. A. Pettit (paper read by Dr. F. M. Smith).

Discussed by Dr. W. K. Purks, Vicksburg

2. The Treatment of Syphilis.—Dr. T. P. Sparks, Jr., Vicksburg.

Discussed by Drs. G. C. Jarratt, Vicksburg; A. Street, Vicksburg; W. P. Robert, Vicksburg; L. J. Clark, Vicksburg; W. K. Purks, Vicksburg; W. H. Parsons, Vicksburg; W. E. Johnston, Vicksburg; H. H. Haralson, Vicksburg. Dr. Sparks closed.

3. Some General Remarks Regarding Anesthetics.—Dr. W. H. Parsons, Vicksburg.

Discussed by Drs. W. C. Pool, Cary; A. Street, Vicksburg; T. P. Sparks, Jr., Vicksburg. Dr. Parsons closed.

Dr. Henry Boswell, Superintendent, State Tuberculosis Sanatorium, explained the purposes and benefits of the tuberculosis diagnostic clinics for the assitance of the practicing physicians in their work with cases of suspected cases of tuberculosis. The work is fostered by the State Board of Health and the Sanatorium.

Dr. Felix J. Underwood, Executive Officer, Mississippi State Board of Health, spoke on the failure of applicants for registration in medicine to satisfactorily pass the state Board Examination in materia medica and pharmacology. Experiences of State Board Examiners in other states were related.

The next meeting of the Society will be held Tuesday, November 13, at the Elks Club, Vicksburg, at 7 p. m. The program will be as follows:

Dr. F. M. Smith, Vicksburg, Chairman.

1. Clinical Case for Discussion and Diagnosis.—Arranged by the Chairman.

2. Tuberculosis:

Introduction by the Chairman.

Symptoms and Diagnosis: Drs. Goodman, Knox, Sanderson, Edwards, G. M. Street.

Differential Diagnosis: Drs. Haralson, Lewis, W. A. Smith, Stribling, Clark.

Etiology: Drs. Herring, Martin, Wilson, Sparks, Jr.

Predisposing Causes: Drs. Hicks Myers, Ewing, Purks.

Pathology: Drs. Huey, Orendorf, Robert, Benton, Gaines, Birchett.

Prevention: Drs. Jarratt Parsons, D. P. Street, Barrier, Few.

Treatment: Drs. H. H. Johnston, Pettit, A. Street, Birchett, Jr.

Complications: Drs. S. W. Johnston, Jones, Pool, R. A. Street, Jr.

General Discussion.

NORTH MISSISSIPPI MEDICAL SOCIETY

A quarterly meeting of the North Mississippi Medical Society was held at University October 3, beginning at 2:00 p. m. The program as announced by the secretary, Dr. A. H. Little, Oxford, was as follows:

1. Invocation.

2. Minutes of Last Meeting.

3. The Effect of Constitutional Conditions on the Ear, Nose, and Throat.—Dr. D. C. Montgomery, Greenville.

General discussion.

4. The Significance of Antepartum Hemorrhage. —Dr. George A. Brown, Water Valley.

General Discussion.

5. Diagnostic Bronchoscopy.—Dr. Wm. D. Stinson, Memphis, Tenn.

General discussion.

PRENTISS COUNTY DOCTORS' ASSOCIATION

The Prentiss County Doctors' Association met in regular monthly session at the Holley Hotel. After the reading and adoption of the minutes of the last meeting, Dr. Anderson gave a paper on the present trend of malaria. The paper was in the form of questions to bring out a round table discussion of the subject, as

Is malaria on the increase?

Do we have a specific treatment?

What steps are advisable in the eradication of and spread of malaria?

Should every person be tested for malaria and given the anti-malaria treatment, or is it best to destroy the mosquito, screen all houses and in that way control disease?

The discussion of the paper ended after each doctor had given his pet treatment of malaria, with the consensus of opinion being that we have no one drug that will eliminate malaria in every patient.

Will W. Strange.

WINONA DISTRICT MEDICAL SOCIETY

Our Winona District Medical Society met in Kosciusko on September 25 with an unusually large attendance. After a most delightful luncheon the following program was given:

1. Tonsillectomy, Indications and Aftertreatment.—Dr. S. L. Bailey, Kosciusko.

2. Acute Sinusitis.—Dr. S. B Caruthers, Grenada

3. Hypertension and Heart Disease.—Dr. T. E. Wilson, Jackson.

4. Some Phases of Medical Economics.—Dr. J. S. Rosamond, West.

5. Case Discussions.—Dr. W. B. Hyde, Durant, Dr. R. B. Ray, Kosciusko.

All papers were excellent and practical.

S. S. Caruthers.

ADAMS COUNTY

The Medical Fraternity of Natchez and Adams County are delighted with the complete recovery of Dr. Lippincott and that he is again able to take care of his many duties.

Dr. L. H. Lamkin is our oldest retired physician in Adams County.

Dr. Philip Beekman is our oldest physician, practicing in Adams County.

Dr. J. W. D. Dicks took a short trip to Memphis in the interest of his profession.

Dr. Philip Beekman ins spending a few weeks in Kansas City with relatives.

The Homochitto Valley Medical Society meets in Natchez on October 11.

Dr. L. H. Wallin is now located with the Chamberlain and Rice Hospital. News from Dr. Raymond Smith is that he is well pleased with his new location at Fort Smith, Ark.

Medical Economics last issue stated that Natchez needed more physicians. Natchez is well supplied with both white and colored physicians at the present time. Do not know where the editor got his information.

Lucien S. Gaudet.

ALCORN COUNTY

Threatened optimism prevails with some of our doctors as cotton selling goes along.

Annual reorganization of the Alcorn County Medical County Society took place September 20, resulting in the election of Dr. C .F. Gilbert, president; Dr. D. W. Hamrick, vice-president; Dr. Dabney Hurt, re-elected secretary-treasurer; and Dr. Stanley A. Hill was named publicity agent. Our Society meets monthly, the third Thursday, 7 p. m., in the Club Room of the Waldron Hotel. Before reorganization, we had a splendid scientific program, three doctors reporting cases of interest. Dr. M. W. Robertson reported a very interesting case of osteomyelitis of the femur; Dr. Bernard Patrick reported a case of functional uterine bleeding, and Dr. S. L. Stephenson, citiy health officer, reported a case of gangrenous stomatitis. Free discussion of each case resulted in a very profitable meeting.

Dr. W. W. McRae, who graduated in 1894, is our senior practitioner.

J. R. Hill.

ALCORN COUNTY

It is our belief that Dr. William W. McRae of Corinth is the oldest in active service. Dr. McRae will be 70 years old in Aprili, 1935, and has had continuous practice for the past 46 years. Dr. McRae has recently returned from the meeting of the American Hospital Association in Philadelphia. My father was licensed in Mississippi in 1894, but had a that time been practicing in Tennessee, near Milan, for a number of years, and was licensed in the State of Tennessee.

My father is now in Augustana Hospital, 411 Garfield Avenue, Chicago, where he underwent an operation for gall stones October 6, He was doing nicely October 7.

M. H. McRae.

COAHOMA COUNTY

Dr. A. J. Brown, who has been seriously ill during the summer, having had a very serious oper-

ation, is now fully recovered and is back at his clinic.

Dr. V. B. Harrison, director of the Coahoma County Health Unit, is now at Johns Hopkins where he is taking a special course in public health work, which was awarded him for efficiency. Dr. N. C. Knight, formerly in charge of the Healt Unit at Indianola, is relieving Dr. Harrison.

Dr. W. H. Brandon leaves the twelfth for Boston where he will attend the meeting of the American College of Surgeons.

Drs. N. C. Knight and T. M. Dye, visited the State Board of Health in Jackson, on the eleventh, on official business.

Dr. S. W. Glass, a past president of the State Association is again seen, occasionally, on the streets of Clarksdale.

E. Leroy Wilkins.

COPIAH COUNTY

Copiah County has installed a health unit with Dr. J. T. Googe of Gulfport as director. Mrs. Connie Peck Higdon continues as nurse.

Dr. W. L. Little and wife of Wesson will attend the meeting of the Southern Medical Association which convenes in San Antonio, Texas, next month. W. L. Lititle,

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DESOTO COUNTY

At the Tri-State Fair, Memphis, the Shelby County Medical Society, the University of Tennessee, and other agencies for the promotion of health had most creditable exhibits. Dr. Chas. M. Hammond of Walls and Memphis also displayed and explained his respirator. This is truly a remarkable apparatus and elicited much attention from physicians and the laity alike.

Mutual friends report that Drs. D. C. Funderburke and H. A. Stuart of Olive Branch are busy in their beloved employ and report conditions generally much better.

I wish every county editor in the state would report for his county. Especially do I urge the Editors of the counties in the second councilor district to report regularly. The Mississippi News is indeed interesting. I read every line every month.

The DeSoto County Medical Society meets the first Monday in January, April, July and October.

L. L. Minor.

FORREST COUNTY

We are happy with Dr. and Mrs. Prentiss E. Smith, Hattiesburg, to announce the birth of a son, Prentiss E., Jr., September 14

Dr. and Mrs. C. C. Buchanan have returned to Hattiesburg from Chicago where they saw the fair and Dr. Buchanan attended the Academy of Ophthalmology and Otolaryngology.

Dr. T. E. Ross continues to improve, at this time being able to be out. However, he has not yet resumed practice.

Dr. S. E. Bethea ushered in the hunting season on Pascagoula River. Details of his success are not available, from which conclusions may be drawn.

The South Mississippi Medical Society meets quarterly the second Thursday in March, June, September, and December. The hour is usually 3 p. m. The place regularly alternates between Laurel and Hattiesburg, occasionally meeting at other points in the district by special request and arrangement.

The September 13 meeting was an unusual one from the standpoint of attendance, interest, and the outstanding visiting essayists. Among these were Dr. James S. McLester, president-elect, American Medical Association, Birmingham, Ala.; Dr. T. B. Sellers, New Orleans; Dr. Eugene Vickery, New Orleans, and Dr. W. H. Anderson, Booneville.

Dr. J. R. Jackson, Hattiesburg, is probably the doctor in Forrest County who has been longest in practice, dating from 1887. For a number of years his work has been limited to diseases of the eye, ear, nose and throat. R. H. Clark

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HARRISON COUNTY

The staff of the Biloxi Hospital met October 5 at 7:30 p. m. Dr. Hollis presided. The meeting was well attended.

Frank O. Schmidt.

ISSAQUENA COUNTY

In your latest card calling on the county editors for news items from their medical men you again asked them to name the oldest practititioners in their respective counties.

Representing Issaquena, with only three doctors, I will say that Dr. W. H. Scudder, of Mayersville is our oldest medical man not only in practice, but also from the standpoint of time.

From private sources and through strategy, it was learned that he was born in 1861, and remembers hearing the siege guns at the bombardment of Vicksburg. But he strenuously denies being seventy-three years old.

When doctors are young they wear glasses and resort to all sorts of subterfuges to make themselves appear older. But when they are old they try even harder to appear young. What was it that somebody said about consistency and a jewel. But doctors are just men, and regular fellows after all. W. H. Scudder.

JACKSON COUNTY

The Jackson County Medical Society met jointly with the staff of the Jackson County Hospital, September 13. The guest speaker Dr. F. T. Bou-

dreau, Mobile, read a paper on "Transurethral Resection of the Prostate."

The next staff meeting will be held October 11.

Born to Dr. and Mrs. F. O. Schmidt, Ocean Springs, a boy, October 6.

F. O. Schmidt.

JACKSON COUNTY

The physicians in our county who has been longest in active practice and still practicing is Dr. A. P. McArthur of Moss Point, with forty-eight years to his credit. This is written at the request of Dr. Rape to correct the statement he recently made to the effect that Dr. W. R. Kell of Pascagoula was the longest in active practice, Dr. Kell having practiced only forty-five years. Dr. Rape himself has been practicing for forty-four years.

The Jackson County Hospital Staff meets monthly at the hospital on the second Thursday at 7 o'clock p. m. The Jackson County Medical Society meets on the second Thursday of March, June, September and December iimmediately following the adjournment of the staff meeting on that date R. G. Lander.

JASPER COUNTY

Dr. W. C. Lamb, Montrose, died September 12, 1934. His age 70 years. Leaves widow and one daughter, Mrs. Neill of Montrose.

J. B. Thigpen.

LAFAYETTE COUNTY

The quarterly meeting of the North Mississippi Medical Society was held at University, October 3. Papers were well discussed and the meeting as a whole was very instructive.

E. S. Bramlett.

LEFLORE COUNTY

Dr. and Mrs. E. R. Shurley, Money, recently sad as their guests, Dr. and Mrs. Hall and daughters, Helen and Wesley, of Bentonia.

Dr. and Mrs. W. B. Dickins visited Greenville, September 10 to see their new granddaughter, born to Mr. and Mrs. John Dickins of Leland at the King's Daughters' Hospital, Greenville, September 8.

Dr. L. F. Ferguson, Greenwood, attended the funeral of his cousin, Sheriff Ferguson of Hinds County, Jackson, September 11.

Miss Marjorie Yates, daughter of Dr. and Mrs. R. B. Yates of this citiy has gone to New Orleans to attend college at Sophie Newcomb.

Miss Nan Barnett, daughter of Dr. L. A. Barnett, Greenwood, has gone to Gainesville, Ga. to be secretary to the president of Riverside Military Academy. Hubert and Bobby Jim, her brothers, are students in this college.

Dr. and Mrs. A. L. Gray, Greenwood, returned from Pasadena, Cal., September 13, where they attended the meeting of the American Public Health Association.

Dr. J. D. Sweaney, Minter City, recently returned from a motor trip through the State of Texas.

Dr. and Mrs. E. M. Murphey, Macon, visited their son at Itta Bena, September 17.

Dr. A. J. Ware, Greenville, visited Greenwood, September 29.

Dr. T. B. Holloman, Itta Bena, visited Jackson, October 3.

Dr. E. W. Hunter has returned from Asheville, N. C., where he went to see his daughter, Mrs. Mat Steele, who is a patient at the Biltmore Hospital. We are glad to learn that Mrs. Steele is better.

The staff of the Greenwood-Leflore Hospital, composed of all the doctors of Leflore County, meets the second Monday night in each month. Dr. L. B. Otken is president and Dr. I. B. Bright, secretary.

We are looking forward to a good meeting of the Delta Medical Society at Greenville, October 10. W. D. Dickins.

MONROE COUNTY

Dr. George F. Darracott is dead. He died about noon, September 18, at his home in Houston. His death was both sudden and unexpected. Your correspondent shook hands and conversed with him at the Houlka meeting of our society on September 12 just six days prior to his death. At that time he seemed in the best of health and spirits. Dr. Darracott was born and reared about seven miles south of Aberdeen. He began the practice of medicine in his childhood environs. He worked there until some ten or twelve years ago, at which time he removed to Houston. He was fifty-seven years old at the time of his death. He was an honest, earnest and capable man. He was exceedingly modest and retiring in his disposition—quiet and unassuming in the most extreme degree. Under no circumstances was he ever known to exploit himself in any way. Conscientious devotion to duty seemed to be his guide through life and faithful capable service to those who trusted him seemed to be his highest ambition. There are many doctors who are known further from where they live and work, but there are few, if any, who are trusted more implicity or loved more sincerely by those who know them best. I should like to say much more about this good man, but will only add that the medical profession of Mississippi lost one of its truest, safest and sanest members in the passing of Dr. George F. Darracott. May he rest in peace may we, his friends and confereres, revere his memory and emulate his life and devotion to duty and unselfish service to humanity.

The North-East Mississippi Thirteen Counties

Medical Society, "our society,"—held its third quarterly session for the current year, at Houlka on September 12. To say it was a great meeting would be superfluous. Every meeting of this society is a great meeting, and when Houlka is the meeting place, **great** does not express the importance and benefits of the occasion. The attendance was good—the program was fine and the discussions were up to any standard of any medical assembly. This may sound extravagant, but it is not so. Why should it be so considered? Mississippi has as good men as any state. Our society has as good men as can be found in the state. Besides this, we had Dr. McLester, president-elect of the A.M.A., on the program. Several of the best men in Memphis were there and participated in the program and discussions. The banquet furnished by the good ladies of Houlka was as fine as I ever attended. Dr. Walker and Dr. Hood are wonderful hosts. No finer meeting will ever be held in the State (or out of it). Those who missed it are to be pitied.

On Thursday evening, September 27, I attended a staff meeting at the Houston Hospital. This too, was a great occasion. Dr. Seale Harris was honor guest of the occasion. His discussion of the important subject "Hyperinsulinism" was as fine as could be. It was so simple and yet so rational that it takes place with the best thought of the day. On Wednesday of this week, October 3, I rode in company with Dr. Ira P. Burdine, Sr., to Oxford to attend a meeting of the North Mississippi Medical Society. I want to thank Dr. Mull for a special invitation to be present. This is a splendid society and the program was good. Memphis men held the spotlight, but they brought papers and discussions that were most interesting. I am very glad that I went. I want to suggest to the members of this society (many of them are my very good friends) that they should attend these meetings better than they did this one. They certainly missed much by their absence.

The October meeting of Monroe County Medical Society convened in Amory Monday evening of this week. I do not see how we used to get along before this society was organized. It is good to fraternize with your nearest neighbors. The next meeting of this society will be at Aberdeen. These monthly meetings alternate between Amory and Aberdeen.

Our county doctors are holding their own (but that is but little). G. S. Bryan.

MONTGOMERY COUNTY

Dr. C. P. Hemphill of Sweatman is the oldest doctor still active in Montgomery County. He threatens to quit but just can't refuse when he is called. His life, his services, his friendship have meant much to the community which he has served so ably, so faithfully, during fifty years. He is recovering from a serious operation now, and we trust he will be with us a long time yet.

S. S. Carutners.

PEARL RIVER COUNTY

I must be it. I began practicing June 2, 1892 and have been in active practice ever since. Dr. Hickman, who is associated with me, made the remark about a month ago that I was the only doctor he ever saw that could do more work than he. He is 10 or 15 years my junior. The next doctor to me has been practicing 22 years.

V. B. Martin.

PONTOTOC COUNTY

It is with a sincere appreciation of his work, both as a man and as a doctor, and with an earnest effort to acknowledge the great good he has done, that we pay tribute in these words to Dr. Lee O. Carruth. Dr. Carruth of Chesterfield is Pontotoc County's oldest practicing physician, havingi begun the practice of medicine in his home communiyt during the spring of 1880, and therefore rounding out his 54th year in the same locality as a"country doctor"—one to whom these lines may be aptly applied:

"He calls no hour of day or night his own,
Through heat or cold he goes his rounds alone;
Here, to bring some mortal into being;
There, to ease some sould that must be fleeing.
He listens earnestly to tales of grief,
Forgets himself that he may give relief.
To bodies suffering, or tortured minds,
In service to all men his pleasure finds
May God forever bless him with His grace,
For when he goes, oh, who will take his place?"

Dr. Carruth's parents were Dr. Aldrian B. and Amanda Brown Carruth. Their home was at Town Creek, five miles north of Chesterville. His father was a native of South Carolina, but came to Mississippi before the Civil War. At that time mail was carried by a stage coach from Memphis to Columbus, and Pontotoc was the distributing point for the daily mail in this section. During the war his father served as assistant surgeon of the 31st Mississippi Regiment and it was during his father's abscence in the army that his grandfather made for him his first saddle bags from old book tops. In them, as he rode his stick horse, he carried rusty knives and medicines of his own concoction for the treatment of ailing chickens and cats—"As the twig is bent the tree is inclined."

As a young man Dr. Carruth read medicine with his father for a year, this preparatory training and experience then being required of all prospective medical students. He was graduated in 1882 from the University of Tennessee Medical College which at that time was located in Nashville. In

1887 he did post graduate work in the Kentucky School of Medicine in Louisville and in 1899 was a graduate student in the New Orleans Polyclinic. Two students of medicine who later became widely known as physicians read medicine under Dr. Carruth, the late Dr. John G. Lilly of Tupelo and Dr. Hugh Anderson now of Sanatorium.

Among his varied experiences as a practitioner Dr. Carruth recalls these items of particular interest:

He has delivered more than 2700 babies.

He has operated, without loss of patient, four times for stone in the bladder and six times for foreign bodies in the windpipe. These delicate operations were performed in the homes of patients, several of them at night with a kerosene lamp to furnish the only lighting facilities. So far as he knows no similar operations have been performed in hospitals of this section, as most doctors carry patients suffering with these ailments to Memphis surgeons.

Dr. Carruth was the first doctor in this section to use cocaine as a local anesthetic in extracting teeth. This method was introduced in Louisville in 1887, and he became familiar with it there while a student. When asked how many teeth he had pulled he laughingly said, "A barrel wouldn't hold them."

In the early days of his practice and well into the 1900's surgery except in city hospitals was confined to amputations. There was practically no abdominal surgery. Appendicitis, as such, was unknown, but was then diagnosed as "cramp colic" and treated accordingly with surprisingly few deaths.

Vaccine for smallpox was the only preventive known for contagious diseases. Dr. Carruth recalls distinictly the ravages of infection that resulted from the arm-to-arm vaccination of Confederate soldiers when vaccine became so scarce the method was resorted to.

Mosquitoes were not known to be carriers of malaria and yellow fever. Dr. Carruth has vivid recollections of the yellow fever epidemic of 1878. Aspirin and similar remedies for "aches and pains" were unknown when Dr. Carruth first practiced. Instead bromide of potash was used and most other medicines prescribed were of the doctor's own compounding, as his office was also an apothecary's shop. We have his daughter's own word for it that he mixed and administered the vilest, but most efficacious, of cough syrups!

In 1906, following an attack of typhoid fever—the only severe illness of his life—Dr. Carruth subsequently suffered terrific pains in his back. After consulting several doctors he was told he had spondylitis or softening of the vertebra, and that pulling or stretching of the spine would alleviate the pain. Accordingly he made necessity again the mother of invention, when, with two strips of bed ticking bound severely over his head and under his chin and a small block and tackle he ingenously officiated at his own hanging! And in this case "hanging separately," proved a cure for his ills, and he was never troubled with a recurrence of this ailment.

Dr. Carruth is a member of the Baptist Church. His home and family have been a source of much joy and satisfaction to him. His wife, Sara Allen Carruth, was loved by all who knew her, and memory reflects a perpetual blessing on the familiy of eight children who survive—Mrs. George Scott, Dyersburg, Tenn.; Dr. R. W. Carruth, Chesterville; Mrs. John Wagner, Memphis, Tenn.; Mrs. A. C. Adams, Belden; Allen B. Carruth, Chesterville; Robert O. Carruth, Belden; Mrs. T. O. Garmon, Verona; Horrace S. Carruth, Chesterville.

Five grandchildren have also added a great share in the fullness of the doctors' cup of happiness.

When asked what philosophy or creed had governed his thinkinig, the doctor replied:

"Staying in a good humor—
Eat and sleep—
Don't worry."

And we knew as we watched the boyish twinkle in his eyes that he had lived his philosophy,—that saying little, he had done much, both simply and well. Then we were reminded of an old definition of a successful man, for we believe Dr. Carruth is one of whom it may be said:

"He has achieved success who has lived well, laughed often, loved much; who has gained the respect of intelligent men and the love of little children; who has filled his niche and accomplished his task; who has never lacked appreciation of earth's beauty or failed to express it; who has always looked for the best in others and given the best he had; whose life is an inspiration and whose memory will be a benediction."

(This sketch of Dr. Carruth's life was written by my daughter Mrs. Gladys Secord).

R. P. Donaldson.

SIMPSON COUNTY

Owing to the death of Dr. E. L. Robinson I was unable to attend the meeting of the Central Medical Society, but I know the meeting was good.

Dr. Robinson died suddenly. He was sixty-four years old and a member of the Central Medical Society. In a radius of fifteen miles of here we have had eight or ten die suddenly within the past twelve months. These happenings are more frequent than in years gone by. We attribute about ninety per cent to the heart. Is this really true?

Yes, I'm the oldest man in active practice.

E. L. Walker.

WARREN COUNTY

Dr. W. H. Parsons recently made a trip to Chicago and while seeing the Fair and Unfair decided to consider the more sober and serious problems of life and betook himself to Rochester to spend a short while at the Mayo Clinic.

Dr. J. A. Milne, drector of the Field Unit for the State Board of Health, recently spent the day with the Warren County health officer and personnel of the department. Dr. Miline is a young man, gifted, energetic and of pleasing personality. Perhaps he will refute the teachings of Bacon in his philosophy of "Youth and Age," wherein he writes, "Young men are better fitted to invent than to judge; fitter for execution than for consel; and fitter for new projects than for settled business."

Dr. Nathan A. Guice, retired physician, died August 23, 1934, at his home on Confederate Avenue, Vicksburg. He was born in Mississippi in the year 1852, and was licensed to practice medicine in Mississippi in 1882. The doctor lived to the good old age of 82 years, 'ere he went "Forth 'neath different stars under an unknown sky." It was not our good fortune to know Doctor Guice intimately as he retired from active practice quite a number of years ago. However, we sincerely regret and thoughtfully reflect when we note the passing of any man who has followed in the line of duty wherein we have endeavored to serve.

Dr. Benson B. Martin, of the Vicksburg Infirmary, desired to forget the sodden gloom of the past to "face the bright hued hope of the future" by taking a week's vacation on the Gulf Coast where he could hear the sea birds cry in the wind, and where drowsy murmurs from the ever restless waters of the Gulf float into the air like thistle down to settle upon and "knit up the raveled sleeve of care" of the tired worker.

In response to our state editor's oft-repeated request relative to our "oldest doctors" in point of service who are still active in the practice of medicine. From the most accurate information we can gather, Dr. J. S. Austin of Oak Ridge and Dr. H. H. Haralson of Vicksburg, were licensed to practice medicine in Mississippi the same year, 1882. Dr. Haralson practiced for a number of years in two other counties before coming to Warren County, therefore, it seems Dr. Austin of Oak Ridge, Warren County, has the greatest number of years given to the continuous practice of medicine in this county of any doctor. Dr. H. B. Wilson seems to have the longest continuous service in the City of Vicksburg. Oliver Wendell Holmes, who was a doctor, said: "To be seventy years young is sometimes far more cheerful and hopeful than to be forty years old." Our venerable doctors, Austin, Haralson and Wilson, are seventy years young and have held to Titus' philosophy of life, "Give me a staff of honor for my age rather than a scepter to control the world."

The Vicksburg Infirmary held its monthly staff meeting at 7 p. m. Wednesday, October 3, with sixteen doctors in attendance. The visiting doctors present were Drs. Gaines, of Tallulah, Louisiana; Green of Utica; Pool of Cary; West and Payton from our CCC Camps.

We have heard that quite a few of our doctors are planning to attend the S.M.A. November 13 to 16, inclusive, convening in San Antonio, Texas, the Alamo City. When we think of the Alamo and its wonderful defense by Travis, Crockett, Bowie, and the other brave men numbering in all only 180 patriots attacked by 4,000 Mexicans led by the atrocious Santa Anna, we forget or disdain the subtle sarcasm of the oft-quoted exclamation, "What millions died—that Caesar might be great," and would rather exclaim what a noble and sublime sacrifice of the patriotic few—that Texas might be free and great. We joyfully anticipate and covet the exalted privilege and opportunity of standing on and visiting the sacred and surroundings that have been fittingly called America's Thermopylae. If we be permitted to attend the S.M.A. may we meet you there.

The Issakuent-Sharkey-Warren Counties Medical Society at its October meeting had as guests, Dr. Henry Boswell, of the Sanatorium, and Dr. Felix J. Underwood, state health officer. These doctors were welcome guests and were both extended the privileges of the floor. Dr. Boswell with his usual genius and charm briefly addressed the meeting and took occasion to explain the aims and purposes of the diagnostic tuberculosis clinic, sponsored by the State board of health, as an aid to the physicians who might desire such services, especially for those of his patients who would be financially unable to obtain same otherwise, he local health department being a so to speak—"Clearing House" in this program of service through the family physician to the case, suspected case and contacts. Dr. Underwood, in his calm, refined and dignified mien, briefly called the attention of the society to the apparent universal lack of scholarly attainment in the present day graduate in medicine's knowledge of materia medico and pharmacology and efforts the Mississippi State Board of Health were making to correct same.

H. T. Ims.

WASHINGTON COUNTY

Mrs. C. P. Thompson and Miss Dorothy Thompson of Greenville had a most delightful visit with Miss Nabors in Winona.

Miss Dorothy Thompson, daughter of Dr. and Mrs. S. P. Thompson of Greenville, is back at "Ole Miss." This is Miss Thompson's senior year. She is majoring in music.

Mr. and Mrs. James Franklin of Jackson have been visiting Mrs. Franklin's mother and father, Dr. and Mrs. T. B. Lewis of Greenville. Mrs. Franklin sang at the synogogue during the holidays.

Master J. Barkley, attractive little son of Dr. and Mrs. T. J. Barkley of Isola, was brought to the King's Daughters' Hospital in Greenville for a tonsillectomy.

Mrs. C. M. Barrier of Jackson, mother of Mrs. Otis Beck of Greenville, underwent a major operation at the King's Daughters' Hospital in Greenville. The many friends of Dr. and Mrs. Beck are delighted to know that Mrs. Barrier has completely recovered.

Dr. T. C. Oliver of Leland, is confined to the King's Daughters' Hospital, Greenville, having been operated upon for an acute appendix. His many friends and patients wish for him a speedy recovery.

Dr. Paul Gamble of Greenville spent a few days in Arkansas recently.

Mrs. Paul Gamble and Mrs. Louis Nicholson of Greenville visited in Jackson recently.

The home of Dr. and Mrs. Paul Gamble, Gam-Wynn Park, Greenville, was the scene of a beautiful event when Mrs. Gamble honored Miss Virginia Eatherly and Mrs. Ralph Owens, and announced their engagement and approaching marriage.

Dr. and Mrs. W. B. Lewis, medical missionaries to Congo, Africa, were recent visitors in Greenville and Leland. Dr. Lewis is spending a month of study with the Mayo's at Rochestetr. Dr. and Mrs. Lewis will return to Africa in January.

Dr. D. C. Montgomery, Greenville, attended the meeting in Chicago of the American Acadamey of Ophthalmoloy and Otolaryngology, of which he is a fellow. Mrs. D. C. Montgomery visited her sister Mrs. John Bullington in Memphis, Tenn., while Dr. Montgomery was in Chicago.

Mr. and Mrs. Fritz Schaas of Memphis have been visitors in the home of Dr. and Mrs. D. C. Montgomery at Montbury, Greenville.

Mr. Lyne Gamble, son of Dr. and Mrs. H. A. Gamble of Greenville, as attending Vanderbilt University Medical School in Nashville, Tenn. Lyne graduated last June at Davidson College receiving his B.S. degree and has decided to follow in the footsteps of his father.

The following doctors were visitors to Greenville this past month: Dr. S. L. Lane, Hollandale; Dr. W. L. Ervin, Inverness; Dr. T. L. Dobson, Leland; Dr. W. H. Cooper, Catchings; Dr. T. J. Barkley, Isola; Dr. E. R. McLean, Cleveland; Dr. G. I. Redditt, McCarley; Dr. B. H. Higdon, Sunflower; Dr. T. C. Oliver, Leland; Dr. Robert Jackson, Belzoni, and Dr. W. B. Lewis, Congo, Africa.

Miss Virgiina Witte, charming daughter of Dr. and mother, Dr. and Mrs. R. S. Roby Bourbon.

Mrs. Roe Fly, Jr. of Jackson is visiting her father and mother, Dr. and Mrs. R. S. Roby, Bourbon, and Miss Virginia Witte, charming daughter of Dr. and Mrs. K. L. Witte of Leland, rode in the horse show held in Greenville.

Dr. J. A. Alexander of Indianola was a patient in the King's Daughters' Hospital in Greenville for several days. Much to the delight of his many friends and patients he is able to be out again.

The friends of Dr. and Mrs. A. J. Ware of Greenville regret to learn of Mrs. Ware's recent operation at the King's Daughters' Hospital, Greenville. It is most gratifying to know that Mrs. Ware is making a rapid recovery.

The friends of Dr. and Mrs. W. H. Cooper was ill in the King's Daughters' Hospital for several days.

Dr. William Hickerson, head of the traveling tuberculosis diagnostic clinic, spent the week, September 10-14, with the health department, conducting clinics in Greenville, Leland, Hollondale and Glen Allen. Eighty people were brought in and sent to these clinics by the physicians of the county. Diagnosis of tuberculosis was made on twenty-one of these cases. With the exception of three cases the disease was in a very early stage.

Dr. Henry Boswell of the Sanatorium was in Greenville on September 11, seeing the work of Dr. Hickerson's clinics, and calling on some of the doctors in town. He and Dr. Hickerson addressed the Kiwanis Club on the work of the Sanitorium and the diagnostic unit.

John G. Archer.

KING'S DAUGHTERS' HOSPITAL, GREENVILLE

The staff of the King's Daughters' Hospital, Greenville, meets the first Wednesday of every month at the hospital. Dinner is served at seven o'clock and is followed immediately by the regular program consisting of a report and discussion of the hospital work and a special program of case reports and papers.

The attendance is always at least 90 per cent, the dinner exceptionally good, and the program most enjoyable and instructive.

J. G. Archer.

AN APPRECIATION OF DR. A. G. PAYNE

The conventional phrases which we are accustomed to use in receiving the passing of our worthy friends and colleagues have all fitting application in the case of our Dr. A. G. Payne, but they fail to comprehend the full measure and stature of the real man.

It would not be possible for our board properly and adequately to appraise the value of Dr. Payne's

service to the King's Daughters' Hospital and to the community in general.

Integrity, devotion to duty, faithfulness in all of life's relations,—these were all his by common consent.

Learned in his profession, a wise counselor, an efficient colaborer, courageous in all convictions, gentle in all contacts, unyielding in his adherence to the strictest concepts of public and private mortality, devoted to his Church and his God, he was a peer among men.

As we, the Staff of the King's Daughters' Hospital, meet under the shadow of his death, here in the place where he sat with us from time to time, we who survive him wish to bear testimony to his never failing faith in this institution. He recognized our mistakes and knew the circumstances of their making, and he never hesitated or wanted to turn back. His courage and constancy were inspiring to us all; his living presence was to us as "The shadow of a great rock in a weary land."

To the loved ones of our departed friend and co-worker we offer this expression of our profound sympathy, and our most affectionate regard.

T. B. Lewis,
G. W. Eubanks,
John G. Archer.

MRS. BESSIE J. TAYLOR

WHEREAS, in the providence of God, Mrs. Bessie J. Taylor has been called from our midst; and

WHEREAS, during her life she has endeared herself to the people of this section; and

WHEREAS, her social and civic activities proclaimed her one of the leading spirits of the Citiy of Greenville and of Washington County; and

WHEREAS, her interest, genius and activities were centered through the King's Daughters' Society in the accomplished building of the King's Daughters' Hospital of Greenville to which she devoted her most valuable efforts for more than a quarter of a century; and

WHEREAS, we, the members of the King's Daughters' Hospital Staff, meeting in Greenville, do appreciate the monumental services of this good woman and rejoice to honor the memory of her Christian character and splendid executive powers; therefore, be it

RESOLVED, That we do express this appreciation to her family and to the community by recounting the facts of her services, by praising her spirit and accomplishments, and by declaring it to be our belief that she was one of our most valuable citizens and purposeful Christian characters; and

RESOLVED, also, That we believe her achievements to have been of that permanent and wholesome sort which shall bless mankind and bring comfort to the needy for a very long period in the future.

BE IT FURTHER RESOLVED, That a copy of this be spread upon our minutes, a copy sent to the bereaved family and one also to the King's Daughters' Hospital.

Signed
T. B. Lewis,
John G. Archer,
G. W. Eubanks.

WEBSTER COUNTY

We have had too much malaria in Webster County this season. With the assistance of our county nurse, Miss Lillie Mae Hood, we have administered typhoid vaccine to about 8,000 persons and 600 children of pre-school age have been given toxoid.

Dr. Hugh Curry, son of the writer, finished his B.A. degree at Mississippi College in 1931. He then entered the University of Tennessee and received his M.D. degree in September, 1934. He is now serving his internship in Knoxville General Hospital, Knoxville, Tenn., at the age of 23 years.

Dr. E. F. Arnold, Bellefountaine, is the oldest man in our county in point of years in practice. He has been practicing in this county for over 40 years and is still active and going strong.

W. H. Curry.

WILKINSON COUNTY

Dr. J. W. Dugger, Director of Industrial Hygiene and Factory Inspection, was a visitor to our city recently for the purpose of setting up a program for examination of laborers and inspection of the meat processing plant to be located here.

Dr. R. J. Field attended the Louisville, Ky. show this month.

Dr. Edwin Butler was in Memphis this month attending the graduating exercises where his brother received his M.D. degree.

Miss Mabel Richardson, superintendent of nurses, attended a meeting of nurses at Brookhaven last month.

S. E. Field.

THE WOMAN'S AUXILIARY TO THE MISSISSIPPI STATE MEDICAL ASSOCIATION

President—Mrs. Henry Boswell, Sanatorium.

President-Elect—Mrs. Leon S. Lippincott, Vicksburg.

Secretary—Mrs. Adna G. Wilde, Jackson.

Treasurer—Mrs. C. C. Hightower, Hattiesburg.

Press and Publicity Chairman—Mrs. Hugh H. Johnston, Vicksburg.

AN INVITATION

The Woman's Auxiliary to the Southern Medical Association will meet in San Antonio, Texas, November 13 to 16.

Headquarters for the women will be in the St. Anthony Hotel where all meetings and functions will be held.

It is earnestly desired that our women of the South will make every effort to attend this meeting "en masse." Your presence will not only help the meeting but will be a great inspiration to you yourselves. San Antonio is delightful and everything possible is being done to make your visit enjoyable.

A cordial and pressing invitation is extended to everyone to to attend the Auxiliary luncheon on Wednesday, November 14 to meet Mrs. Robert Tomlinson, national Auxiliary President and other distinguished guests.

Most cordially yours,
Mrs. Southgate Leigh, President.

HONOR ROLL

The following have contributed to the Mississippi Section of our Journal this month:

COUNTY EDITORS: L. S. Gaudet, J. R. Hill E. L. Wilkins, W. L. Little, L. L. Minor, R. H. Clark, W. H. Scudder, F. O. Schmidt, J. B. Thigpen, E. S. Bramlett, W. B. Dickins, G. S. Bryan, R. P. Donaldson, E. L. Walker, H. T. Ims, John G. Archer, W. H. Curry, S. E. Field.—18.

SOCIETIES: Second Councilor District, L. L. Minor; Adams County Medical Society, L. S. Gaudet; Clarksdale and Six Counties Medical Society, E. Leroy Wilkins; Coachoma County Medical Society, E. Leroy Wilkins; Delta Medical Society, J. G. Archer; East Mississippi Medical Society, Leslie V. Rush; Issaquena-Sharkey-Warren Counties Medical Society; North Mississippi Medical Society, A. H. Little; Prentiss County Doctors' Association, Will W. Strange; Winona District Medical Society, S. S. Caruthers.—10.

WOMAN'S AUXILIARY: Mrs. Southgate Leigh. —1.

HOSPITALS: Houston Hospital, Miss Eva Collins; King's Daughters' Hospital, Greenville, John W. Shackelford; Rush's Infirmary, Leslie V. Rush; Vicksburg Hospital, W. H. Parsons; Vicksburg Sanitarium.—5.

OTHERS: Felix J. Underwood, J. S. Ullman, P. W. Rowland, Catherine R. Mayfield, M. H. McRae, R. G. Lander, S. S. Caruthers, V. B. Martin, W. K. Purks, A. Street, G. C. Jarratt, R. A. Street, Jr.—12.

GRAND TOTAL—46.

THANK YOU.

BOOK REVIEWS

The Dangerous Age in Men: By Chester Tilton Stone, M. D., New York, Macmillan Co., 1934. pp. 105. Price, $1.75.

Dangerous Age in Men is a small book dealing with diseases of the prostate and seminal vesicles —emphasizing sexual disturbances. It is written apparently for both laymen and physicians. Its value for lay reading matter is questionable and for the physician it contains nothing new or unusual.

EDGAR BURNS, M. D.

A Text-Book of Pharmacology and Therapeutics or the *Action of Drugs in Health and Disease*: By Arthur R. Cushny. Tenth edition revised by C. W. Edmunds and J. A. Gunn. Phila. Lea and Febiger, 1934. pp. 786.

This is the second revision since the death of Cushny in 1926. The material has been brought up to date in a highly commendable manner. This volume is unique in that it comes nearer than any other to presenting the view points of both Great Britain and the United States. Dr. Cushny himself was a native of Scotland, was educated at the University of Aberdeen, and later taught at Ann Arbor, Michigan, where most of his splendid work was accomplished. The last two revisions have been done by Dr. Edmunds of Ann Arbor and Dr. Gunn of Oxford, England, both of whom have an international reputation in their chosen field. The text, therefore, naturally carries the preparations of both the United States and British Pharmacopoeias. The arrangement differs somewhat from other works on pharmacology. The material is divided into:

Introduction, which includes methods of administration, general considerations as to pharmacologic action, and a wealth of other material.

Part I, Substances Which are Characterized Chiefly by Their Local Action.

Part II, Substances Characterized Chiefly by Their Action After Absorption.

Part III, The Heavy Metals and Metalloids, and Classification of Drugs According to Their Therapeutic Uses.

Each important drug is considered according to a definite system of arrangement that is admirably adapted for convenience of study. The illustrations, while few in number, are well selected. The reviewer is particularly pleased to note the emphasis that is laid on the actions of drugs on human beings. Taken as a whole this work continues to be a valuable contribution to medical literature.

O. W. BETHEA, M. D.

That Heart of Yours: By S. Calvin Smith, M. D., Sc. D. Philadelphia, Lippincott, 1934. pp. 212, Price, $2.00.

"This book written for those who have or think they have heart trouble," is written in a very optimistic style. It is a difficult problem to write a book of this kind without creating new fears in the patient or would-be patient's mind.

In chapter one the author writes that mental states of anxiety, apprehension, psychic shock and fear are responsible for forty per cent of the new patients who consult physicians specializing in heart conditions. I think most cardiologists will agree to this. In chapter four the author says, "Athletes hearts—or hearts that are overstretched by physical overstraining—do not arise from the physical activities of mature men and that most athletic hearts owe their inception to the excessive physical effort that is put forth during the adolescent period of heart development." It is a question whether a healthy heart is ever damaged by physical exertion. His advice about emotional tranquility and food is good. The same may be said of beverages and smoking .The last two chapters devoted to individual instructions for special heart conditions and the psychology of reconstruction contains some good advice. It probably goes a little bit too much into detail for the lay reader.

If one is of the opinion that books of this kind are beneficial to patients, the reviewer having his doubts, then the book is to be recommended.

J. M. Bamber, M. D.

A Compend of Diseases of the Skin: By Dr. J. F. Schamberg, A. B., M. D. Ninth Edition. Philadelphia, P. Blakiston's Sons & Co., Inc., 1934. pp. 331. Price, $2.00.

This handy, easily carried compend, compiled by Dr. Schamberg, and revised and enlarged by Dr. Wright, like its predecessor editions should and will be the students beginning in the study of diseases of the skin. Other small and large texts on diseases of the skin are used but the trend is always back to this noteworthy text. It is compact, logically arranged, a rapid reference to the most common diseases of the skin. It is highly recommended by teachers for students and also those who have allowed their text on dieases of the skin to become antiquated.

M. T. Van Studdiford, M. D.

Foreign Body in Air and Food Passages: By Chevalier Jackson, M. D., and Chevalier S. Jackson, M. D. New York, Paul B. Hoeber, Inc., 1934. pp. 265. Price, $12.00.

This is a splendid discussion and resume of the roentgenological diagnosis of foreign bodies in the food and air passages written in that clear characteristic style of Jackson. The book is filled with illustrations and roentgenograms showing the various problems to be solved by the roentgenologist and the endoscopist. Ample discussion is given each problem and much valuable data and information are presented. A splendid- description of the bi-plane fluroscope, so important in certain type of foreign bodies, and its uses in foreign body work is described.

While this book is intended primarily as an aid to the roentgenologist, it should be carefully studied by all engaged and interested in foreign body work in the air and food passages.

F. E. Lejeune, M. D.

PUBLICATIONS RECEIVED

Lea & Febiger, Philadelphia: Internal Medicine, edited by John H. Musser, B. S., M. D., F. A. C. P. Physiology in Health and Disease, by Carl J. Wiggers, M. D. Rules for Recovery from Pulmonary Tuberculosis, by Lawrason Brown, M. D. Cataract, Its Etiology and Treatment, by Clyde A. Clapp, M. D., F. A. C. S.

J. B. Lippincott Company, Philadelphia: Applied Anatomy, by Gwilym G. Davis, M. D. completely revised by George P. Muller, M. D.

The MacMillan Company, New York: Tuberculosis of the Lymphatic System, by Richard H. Miller, M. D., F. A. C. S. Wish-Hunting in the Unconscious, by Milton Harrington, M. D. Tumors of the Female Pelvic Organs, by Joe Vincent Meigs, M. D., F. A. C. S.

Edwards Brothers, Inc., Ann Arbor, Michigan: The Patient and the Weather, by William F. Petersen, M. D., Volume III, Mental and Nervous Diseases.

Charles C. Thomas, Springfield, Illinois: Sex-Hygiene, What to Teach and How to Teach It, by Alfred Worchester, A. M., M. D., Sc. D. Hygiene for Freshmen, by Alfred Worchester, A. M., M. D., Sc. D.

G. P. Putnam's Sons, New York: Nature's Way, The Fertile and Sterile Periods of Marriage, by Victor C. Pedersen, A. M., M. D., F. A. C. S.

Committee on the Grading of Nursing Schools, New York City: An Activity Analysis of Nursing, by Ethel Johns, R. N. and Blanche Pfefferkorn, A. M., R. N. Nursing Schools Today and Tomorrow, Final Report.

Medical Arts Publishing Company, Harrisburg, Pa.; Conception Period of Women, by Dr. Kyusaku Ogino.

Published by Arthur, 1816 North Clark Street, Chicago: Institutional Care of Mental Patients in the United States, by John Maurice Grimes, M. D.